DOCUMENT RESUME

ED 096 827 FL 006 424

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TITLE The Importance of Objectives in Foreign Language Instruction as Rated by Teachers.
INSTITUTION Finnish Association for Applied Linguistics, Helsinki.
PUB DATE 74
NOTE 114p.

EDRS PRICE MF-$0.75 HC-$5.40 PLUS POSTAGE
DESCRIPTORS Affective Objectives; Behavioral Objectives; Cognitive Objectives; *Educational Objectives; *English (Second Language); Language Development; *Language Instruction; Psychomotor Objectives; Second Language Learning; *Surveys; *Teacher Attitudes
IDENTIFIERS *Finland

ABSTRACT

This study was an investigation into instructional strategies considered to be the most efficient in the achievement of defined educational aims. Specifically the purpose was to determine teachers' ratings of the importance of certain cognitive, psychomotor, and affective objectives of foreign language (English) instruction in Finland. These ratings were obtained by means of a questionnaire sent to teachers of elementary, intermediate, and advanced English throughout Finland. The differences in responses were attributed to the varied personal-social background and training of the teachers. Statistical analyses and comparisons of the ratings at all levels are given in detail. The objectives in the cognitive and psychomotor domains dealing with spoken language as content and knowledge and perception as pupil behaviors were rated as the most important at all levels. None of the affective objectives were considered unimportant. The most important objectives at each level were those connected to content. Extensive bibliographic references and appendixes of statistical data are included. (LG)

ED 096827

Anna-Liisa Leino

THE IMPORTANCE OF OBJECTIVES IN FOREIGN LANGUAGE INSTRUCTION AS RATED BY TEACHERS

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FL 006 424

Turku

1974

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1. INTRODUCTION

The present study constitutes a subject-related part of Niskanen's Research on Educational Aims (1973a), the results of which will be employed in the wider context of an interdisciplinary school building project (Niskanen 1973b). In this there will be an investigation into what instructional strategies will be most efficient in the achievement of different aims and what kind of facilities will be required by these strategies. A thorough review of the literature on educational aims has been presented by Kansanen, whose studies deal with the affective aims of the comprehensive school (Kansanen 1971a, b; 1972a,b; 1973). It is the purpose of the present study to investigate the importance of the objectives of foreign language (English) instruction as rated by teachers. Only the literature which is considered relevant to the aims of foreign language teaching will be reviewed. The terms: "aim", "objective", and "goal" will be used as synonyms. Whenever specification is necessary, it will be made through the use of appropriate adjectives (e.g. long-term, short-term, immediate, distant). These terms are commonly used in this way in the literature on the subject in spite of general recommendations to use "aim" in a wider sense and "objective" in a more limited

sense. The term "goal" is often used to define "aim" or "objective" (e.g. Roberts 1972). Popham (1969) considers the choice of the term unimportant. The important thing is that we refer to an intended change in the learner.

There are many problems connected with objectives of instruction. One difficulty often encountered is that the objectives are usually expressed in such vague, unrealistic terms that they offer little guidance, either to the teacher planning his instructional procedures and evaluating the outcomes of his instruction, or to the student who wishes to assess his own progress. Objectives can be expressed in terms of pupil behaviour, teacher behaviour or teacher and pupil interaction (Kansanen 1972b; Niskanen 1973a). This study is only concerned with objectives expressed in terms of pupil behaviour and the content in which the behaviour is to occur. This is the way objectives should be expressed according to Bloom et al. (1956).

Goals that specify the observable outcomes of instruction are called by Valette (1972) "performance objectives". Because of its simplicity she finds this term preferable to "behavioural or instructional objectives".

A formal performance objective consists of the following parts: purpose, student behaviour, conditions and criteria. Thus, in addition to student behaviour, a formal performance objective describes also the purpose of behaviour, the conditions under which it will occur and how it will be evaluated (cp. Mager

1970). Valette discusses the extent to which it is possible to specify the outcomes of foreign language instruction in terms of formal performance objectives. According to her, the goals which represent elementary aspects of learning, such as manipulation of sentence patterns, naming objectives in the foreign language or reciting memorized material, can be expressed in terms of formal performance objectives. There are, however, other types of activity, the outcomes of which cannot be predicted, like free composition or conversation. These outcomes should be expressed in terms of open-ended, expressive performance objectives, which contain only statements of purpose and student behaviour. Conditions and criteria should not be specified. The latter could be simply whether or not behaviour has occurred. Valette's expressive performance objectives do not correspond to Eisner's (1969) expressive objectives, which do not specify student behaviour but describe an educational encounter. They identify, for instance, situations in which pupils have to work but do not specify what they are to learn from the situations. In this study, purpose, criteria and conditions will not be specified for reasons given below.

The background of objectives of foreign language instruction will be reviewed in terms of content (language, communication and culture) and pupil behaviour (cognitive and psychomotor domain, affective domain, criteria). There is some overlap in the areas to be presented but, in order to give structure to the background, it is necessary to keep them separate. It

must be stated at this point that the content (the "what") has been a neglected area in research on foreign language teaching, while methods of teaching (the "how") have been given considerably more attention (Banathy et al. 1966).

2. BACKGROUND TO STUDY

2.1. Content

2.1.1. Language Descriptions

The main content of foreign language learning is naturally the foreign language. This brings up the question: What is language? Since language is the object of study of many branches of learning, it is not surprising that there are many different answers to the question, depending on what is observed, how it is observed and what the principles of observation are. Mackey (1965) has presented an analysis of different linguistic theories showing the many points in which there can be differences in various language descriptions or grammars as they are called. Many of the differences are caused by the fact that language is such a complex phenomenon that no one viewpoint can see it as a whole (Corder 1973).

The best-known grammars are the traditional, structural and transformational. It is necessary to present a brief analysis of each of these before their contribution to foreign language instruction can be discussed.

Traditional grammar describes the language of great writers of the past and overlooks the language as it is used at present. Spoken language is also neglected. Emphasis is often

put on points of minor significance while important constructions are overlooked. No attention is given to the systematic construction of correct complex sentences. Rules are given but their validity is never questioned. Examples are of great importance; were they omitted some of the rules would have been incomprehensible. The failure of this grammar to provide the teacher with an adequate description of the language he is teaching is shown, for example, by the compartmentalized manner in which grammatical information is given (Roulet 1970).

Structural grammar, which is the most influential of modern linguistic theories (Ivić 1966), describes the language as used in a certain community at a certain time and makes a distinction between language levels (for example, formal spoken language, familiar spoken language). Attention is given to the spoken language needed by the pupil as an instrument of communication. The most obvious problems with structural grammar are those connected with the neglect of the creative aspect of the language, manipulation of structures in isolation, too great an emphasis on details and lack of criteria of good and bad grammar (Roulet 1970). The influence of Skinner is seen in the way that the linguistic responses of human beings are considered to be the same as the physical responses of animals to their surroundings.

Transformational generative grammar, the term recommended by Parkinson (1972), although Chomsky (1965) used the term generative grammar, tries to characterize the knowledge of the

language that forms the basis for the use of his native language by an ideal speaker-hearer. That knowledge is called a person's linguistic competence. Transformational generative grammar is presented in the form of a system of explicit rules, which includes information on the construction of complex phrases. An attempt is made to describe the ability to construct an infinite number of grammatical sentences, which shows an awareness of the creative aspect of language. The most recent versions of transformational grammar use a system which is so abstract and complex that it can be called empty formalism (Roulet 1970).

2.1.1.1. Language Descriptions and Foreign Language Teaching

A language description may contain any or all of the following: phonetics, grammar, vocabulary, and meaning (Mackey 1965), which are, of course, interrelated. The linguistic content of foreign language teaching consists of phonetics, grammar and vocabulary; grammar here is used in a more limited sense than a global description of a language. In this context it refers to morphology and syntax. Meaning is the most important aspect of language and is closely connected with the culture which it represents and even though it is not treated in the same systematic way as phonetics, grammar, and vocabulary it is involved all the time. According to Jakobovits (1970) three different levels of meaning can be found in any utterance, namely lin-

guistic, implicit, and implicative. Linguistic, or explicit (direct) meaning, as Valette (1971) calls it, includes lexical, syntactic, and phonological elements. It is usually the only level of meaning that is stressed in foreign language instruction in schools. Beyond this level is the implicit meaning which is derived from the context. The inferential process requires both linguistic knowledge and knowledge of the situation to which the utterance refers. The implicative meaning is connected with aspects of the speaker. Implications are often by-products conveyed in the tone of voice or gestures; it is necessary to understand them in order to grasp the intended meaning of the utterance.

Even though the question of the extent to which linguistic principles can be applied to foreign language teaching is rather controversial there seems to be an agreement on the importance of grammar models in defining the content of instruction. The question of the content is considered to be narrowly linguistic (Saporta 1966). The division of what is taught into pronunciation, vocabulary, and grammar is derived from the linguist's descriptions (Corder 1973). These descriptions can give the teacher a better idea of what to teach and what material to include in the course (Ek 1971; Lee 1972; Perren 1971), and they give the teacher accurate and explicit knowledge of the language he is teaching (Roulet 1970). Structural linguistics has had a great influence on instructional material, for example, in the form of drills (Bosco et al. 1970;

Rivers 1968); the contribution of transformational generative grammar is also considered to be in the area of learning materials (Rivers 1968).

The lack of harmony and uniformity in the "jungle" of linguistics may, however, make it difficult for the textbook writer to decide what is of practical use to him (Girard 1972). The situation could, of course, be improved by giving the textbook writer proper linguistic training. Matos (1971) wanted to find specific examples of the application of linguistic principles to the production of materials. He examined fourteen teacher's manuals published since 1960 in different countries and came to the conclusion that their claims to be based on linguistics were exaggerated and unrealistic.

The amount of language to be taught at different levels is generally quantified by means of the number of words. For example, the size of the active vocabulary of students in our comprehensive schools varies from 1000 to 3000 depending on the course (Mietintö, II). The choice of the words is based on word-frequency counts, a criterion critized by Perren (1971) since students are going to learn only part of the language, not the whole of it, and the counts are based on the frequency of occurrence in relation to language as a whole. What is needed is a definition of the part of the language to be learnt. The importance for the learner of different words could then be determined in relation to that part.

As regards other aspects of foreign language instruction there is less agreement. The views expressed often seem quite contradictory, which may partly be due to the fact that the writers have not specified which type of grammar they are dealing with. Ek (1971) and Parkinson (1972) do not find transformational generative grammar relevant to foreign language instruction while there are others (e.g. Leiwo 1972; Ritchie 1972a,b; Roulet 1973) who are convinced of the impact that linguistics in general and transformational generative grammar in particular can have on the teaching of foreign languages. Concrete examples of the application of this grammar model to the teaching of languages have been given by Lakoff (1969) and Roulet (1970). The need for pedagogical grammars has generally been acknowledged (e.g. Corder 1973; Jarvis 1972; Noblitt 1972; Rivers 1972; Saporta 1966). These grammars would modify the contribution of linguistics for pedagogical purposes in a way that would help the textbook writer give sequence to his material and assist the teacher in presenting it.

2.1.2. Communication

Communication will be dealt with here only from the point of view of foreign language teaching. Consequently communication in general will not be touched upon. Language has been defined as a system which is used when people interact for the purpose

of communication (Blindert 1971). The ultimate goal of foreign language teaching is the achievement of the ability to communicate, the development of which has recently been greatly stressed (Oller 1971; Palmer 1970; Rivers 1968, 1972). The crucial point in foreign language teaching is not how to teach the skills of listening, speaking, reading, and writing but how to fuse those skills for the development of communicative exchange (Elkins et al. 1972).

Communication is a process involving at least two people. Koort (1972) has made a distinction between relationship and communication. According to him, for a relationship to develop into communication, it must be presupposed that the relationship has been created on purpose, that is, the sender has produced a purposeful message to create a relationship, and the receiver has become aware of the message and has the intention to understand the information of the message. Ammons (1973) has the same idea of communication. Rivers (1972) speaks about pseudocommunication, which means language activities that are externally directed and dependent on the teacher. Psychomotor activities at least belong to the area of pseudocommunication. Hornsey (1972) has discussed communication between native speakers and communication in the foreign language classroom. The former serves to convey information, while the latter serves the pedagogical purpose of acquiring a new language. Language and experience progress in parallel in native language communication; on the other hand, language is new but

experience old in classroom communication. For most activities in a foreign language classroom pseudocommunication seems an appropriate term.

Effective communication requires different kinds of competence. Competence has been defined as an internalized set of rules by means of which a speaker is able to understand and produce language and recognize ungrammatical expressions (Hakulinen et al. 1970). Evidence of the existence of linguistic competence, which is a central concept in transformational generative grammar, is provided by a person's linguistic performance, which reflects the interaction of a number of factors of which linguistic competence is only one. Linguistic performance is variable and influenced by such supposedly non-linguistic factors as attention, memory, interest, emotional involvement etc. (Chomsky 1965; Cooper 1968; Jakobovits 1970; Rivers 1968).

Communicative competence consists of linguistic and contextual competence. We do not communicate by putting sentences together but by using them to make statements of different kinds in different situational settings. It is not enough for a person to be able to produce grammatical utterances but to be able to use them appropriately, to know what to say and when and where (Cooper 1968; Jakobovits 1970; Widdowson 1970). In Widdowson's terminology, pupils must be taught "value", that is, the meaning language items have when they are used in acts of communication. The situational basis of linguistic forms

has also been recognized by others (Ek 1971; Lee 1972; Perren 1971). According to Ritchie (1967b) we have to select situations which the pupil will probably encounter and "wish to verbalize about" (p. 121). These situations would then serve as the basis for the construction of foreign language courses. The situations which are most frequently encountered and which the student will want to verbalize about would be the highest in the hierarchy of situations, the least frequent ones would be the lowest. There are some problems in this approach, however. Even if it were possible to predict the situations with enough precision, how are we to know whether they are those which a pupil wants to verbalize about? Maybe this approach is based on the assumption that the most frequently encountered situations are those that a pupil wants to speak about. Wilkins (1972) has also discussed the problems of the situational approach, posing the basic question of how to define situation. According to him, the situational approach is not suitable for a general language course but might be suitable for courses with narrowly definable aims. Wilkins gives attention to what kind of things a learner is likely to communicate, what the notions are that he will express through the foreign language. This approach is called semantic or notional and its purpose is to give the means by which a minimum level of communicative ability in foreign languages can be established. Wilkins has presented examples of his categories of a semantic syllabus and emphasized the importance of considering the communicative value of everything that is taught.

2.1.3. Culture

Language is not self-dependent, it does not exist in a vacuum but forms an integral part of a culture. Authentic use of the language, listening to native speakers and reading original texts involves beliefs, traditions, attitudes and values that account for the way the people live and behave. For full communication in a foreign language it is important to understand what cultural units of meaning are attached to units of expression (words, idioms). Lado (1964) calls these units of meaning EMUs (elementary meaning units) and emphasizes the need for understanding a foreign culture through its own language rather than translations. According to Nostrand (1966) the weakest aspect of foreign language instruction is the teaching of foreign culture and society. From the point of view of selecting cultural content, the basic question is how to describe foreign culture, society, and way of life. Nostrand attempts to solve the problem by means of the following questions and answers:

1. What purposes do we want to serve by teaching about a foreign way of life?
2. How do we select what is essential, or most important for the purposes we intend to serve?
3. How do we define the essential features so as to make them enlightening?

1. The purposes we want to serve by teaching about a foreign way of life are cross-cultural communication and cross-cultural understanding (Nostrand 1966). Cross-cultural communication means that the learner should be able to understand and produce the foreign language, he should have a positive attitude toward the foreign culture and be able to represent what is good in his own culture. The other purpose, cross-cultural understanding, is involved in cross-cultural communication, since getting along with the foreign people requires an understanding of them. The question of cross-cultural understanding is a very complex one; many aspects of culture and society have to be taken into account. Understanding foreign culture requires the capacity and determination to be patient, kind, and reasonable in dealing with things that are difficult to understand and tolerate, and especially in dealing with cross-cultural problems. We shall see later that these questions are very closely connected with the affective aims of foreign language teaching. In teaching cultural understanding attention should be given to the attitudes which Nostrand calls cultural relativism, perspectivism and "imperturbability" (p. 5). Cultural relativism pertains to the question of the cultural content of foreign language textbooks. Very often foreign people are presented as if they, for example wore national costume every day. Lado (1964) warns against the use of false clichés or stereotypes of a foreign culture. On the other hand, interesting details, which are not predominant in the culture may motivate especially younger pupils better than significant

predominant facts. Perspectivism means that we should try to understand foreign culture but also take advantage of our outside perspective which the people cannot have on themselves. Imperturbability means the ability to observe new ways of doing things in an objective way without suffering from culture shock. The relevance of this aspect and how it can be given importance in teaching has been discussed by Rivers (1968).

2. For selecting what is essential Nostrand has two approaches: a schematic and an empirical one. The former means that we systematically arrange the foreign way of life in categories which consist of important aspects of the way the foreign people live. Since we lack descriptions of the major cultures of the world the language teacher either has to omit much of the target culture or fill areas of content on the basis of his own interpretation of the culture. An empirical approach uses the experience of people who have had contact with the foreign culture to find out exactly what was easy or difficult to understand or get along with.

3. When defining the essential features of the foreign culture a distinction has to be made between situational context and schematic context. The former is the one in which an event happens and the latter is the one in which we place the event to understand it. Schematic context consists of a socio-cultural whole, in which we should distinguish between a descriptive account and what we add through our interpretation and explanation. It is important to neutralize the bias caused by one's own cul-

ture. There are two questions connected with the definition of elements that are essential in a foreign people's way of life. What are the standards of evidence demanded and what is the form in which generalizations should be stated? In answering these questions we have to recognize various factors, for example subcultures, age levels and religious groups.

It seems that the choice of the cultural content of foreign language textbooks has mainly been intuitive, based on the writers' own experiences with the culture. There is some evidence to show that the selection and presentation of the cultural content has not always been successful (May et al. 1971).

2.2. Pupil Behaviours

Pupil behaviours have been the centres of great interest when goals of instruction have been discussed. They have been classified hierarchically beginning with the simplest behaviours and proceeding to the most complex. One of the best-known taxonomies of the cognitive domain is that developed by Bloom and his colleagues (1956). Their system is based on the assumption that the same classes of behaviour can be observed in different subject-matter contents, an assumption which has been criticized by Sullivan (1969), who has also pointed out that there is no evidence to show that learning occurs in the way presented in the model. Judging by the illustrative test items given in the taxonomy it is most suitable for classify-

ing behaviours in physical and social sciences, history and literature. Behaviours in the affective domain have also been classified hierarchically (Krathwohl et al. 1964) and recently a taxonomy appeared of the psychomotor domain (Harrow 1972).

Valette (1971) and Valette et al. (1972) who have modified the Bloom and Krathwohl taxonomies to suit foreign languages, give the following reasons for classifying objectives taxonomically: a teacher gains a better perspective on his teaching, designing the foreign language curriculum is easier, a taxonomy can help to give sequence to instruction, and it can facilitate communication between teachers. The same kind of reasons are given for the classification of the general aims of education. It would seem reasonable to assume that taxonomies of the objectives of individual school subjects might prove more useful, since with specific content it might be possible to express the intended observable learner behaviour more precisely and analyze the conditions and tasks more specifically.

Concerning terminology, Valette's earlier modification (1971) consists of content and behaviours in second-language teaching, while the later version (Valette et al. 1972) deals with teaching areas and subject-matter goals. The terminology is not very clear at this point, however. The following two quotations serve to illustrate the point: "Subject-matter goals refer to what is being taught: the language skills, the grammar and vocabulary, the culture, the literature. Can the student recognize verb tenses? Can he understand a conversation in the

foreign language? Can he identify cultural patterns typical of the foreign country? Can he analyze a poem? These behaviours fall into the area of subject matter" (p. 28) and "In foreign languages the subject matter might consist of speaking, reading and writing the language itself; or it might consist of a study of the foreign culture, an introduction to the foreign literature or a combination of all the above" (p. 29). The concept of teaching area is not defined at all. Maybe the use of the term "subject-matter goal" emphasizes the fact that the behaviours are not just any behaviours applicable to any subject but those tied to the subject-matter content of foreign languages. On the other hand all student behaviours, at least in the cognitive domain, fall into the area of some subject matter. Since the term subject-matter goal is liable to cause confusion the present writer prefers the term behaviour.

2.2.1. Cognitive and Psychomotor Domain

As psychic functions the cognitive and psychomotor domains are usually dealt with separately. In foreign language teaching the areas are, however, so closely intervowen that it might well be impossible to keep them apart. Especially in the early stages of foreign language learning psychomotor activities are very important, for instance, the teaching of the mouth positions for those sounds which do not exist in the native language.

In the taxonomy of the psychomotor domain (Harrow 1972), the area of perceptual abilities, which includes visual and auditory discrimination, seems most relevant to foreign language teaching.

In foreign language behaviours Rivers (1972) has identified two levels: manipulation and expression of personal meaning. The former is concerned with language elements in relationships that vary within narrow limits; in the latter the variations are infinite. Valette's earlier modification (1971) of the Bloom taxonomy consists of the following:

Knowledge and Perception

A. Knowledge of elements
B. Ability to differentiate and discriminate among elements
C. Knowledge of rules and patterns
D. Ability to differentiate and discriminate among rules and patterns

Manipulation

E. Ability to reproduce elements and patterns
F. Ability to manipulate elements and patterns

Understanding and production

G. Ability to grasp explicit (surface) meaning of utterances and patterns
    G.1 paraphrase
    G.2 English (native language equivalents)
H. Ability to produce utterances or patterns conveying the desired explicit meaning
I. Ability to analyze utterances or patterns in terms of implicit (deep) meaning
J. Ability to analyze utterances or patterns conveying the desired implicit meaning.

Knowledge includes both the passive or receptive skills of recognition and the active or productive skills of recall. Perception consisting of differentiation activities is the lowest category of the psychomotor domain. After learning to differentiate among elements the student must learn to recognize them in new patterns.

Manipulation is part of the psychomotor domain too, but it can also be considered to belong to the cognitive area. Such student behaviours as repeating and memorizing language material and participating in drill activities belong to this category.

Understanding and production consist of the four traditional skills of listening comprehension, speaking, reading comprehension and writing. If emphasis is on direct meaning they belong to categories G and H; if implicit meaning is concerned they belong to I and J. According to Valette G corresponds to Bloom's Comprehension, H to Application, I to Analysis and J to Synthesis.

The later modification (Valette et al. 1972) of the Bloom taxonomy is called Taxonomy of Subject-Matter Goals. It is divided into five stages each of which contains internal and external behaviour. The passive skills involve internal behaviour while the active skills involve external behaviour.

Stages of the Subject-Matter Taxonomy (Valette et al. 1972 p. 32)

Stage	Internal Behaviour	External Behaviour
1. Mechanical Skills	Perception (B, D)	Reproduction (E)
2. Knowledge	Recognition (A, C)	Recall (A, C)
3. Transfer	Reception	Application (F)
4. Communication	Comprehension (G)	Self-Expression (H)
5. Criticism	Analysis Evaluation (I)	Synthesis (J)

The letters added in brackets by the present writer show how the new categories correspond to the earlier ones. With reference to details, Valette earlier considered the ability to make sound-symbol associations to belong to area C; now she considers it to be a mechanical skill of perception. There is no exact equivalent of the internal behaviour of reception in the stage of transfer in the earlier version. Typical of this stage is the fact that the situations are structured; the material is known but its order of presentation is new. Communication here belongs to the area of student behaviour; in the earlier modification it was one of the content categories. Which it is depends on the viewpoint taken. As was previously mentioned all the content and behaviour categories are very closely interwoven.

2.2.2. Affective Domain

Valette (1971) calls the behaviours of the affective domain participation objectives, and lists the following:

K. Greater awareness of the phenomenon
L. Increased tolerance of differences
M. Demonstrated interest in the phenomenon
N. Satisfaction derived from achievement
O. Continuing desire to improve competence and increase understanding
P. Active promotion of cross-cultural understanding

Greater awareness of the phenomenon means e.g. awareness of differences between languages, awareness of other values and other countries. Increased tolerance of differences shows in the acceptance of differences in languages, manners, world view etc. These categories and the following ones relate to the cultural content of foreign language teaching and the problem of understanding cultures both of which are emphasized by Nostrand (1966). Behaviour categories K and L correspond to Receiving in Krathwohl et al.'s taxonomy.

Demonstrated interest in the phenomenon means greater interest in the language and culture; it may be closely connected with the next category, satisfaction, which the student derives from mastering new aspects of language study. The categorization is supposedly a hierarchical one. It is not clear, however, whether M and N are parallel or one is included in the other. The former alternative seems more suitable. They correspond

to Responding in Krathwohl et al.'s taxonomy.

The last two classes of behaviour, which correspond to Valuing in Krathwohl et al.'s taxonomy, mean that the student shows a desire to improve his competence in the new language and to learn more about the foreign culture; in addition he will contribute to promotion of cross-cultural understanding.

The later modification (Valette et al. 1972) of Krathwohl et al.'s taxonomy is divided into five stages each of them having two categories of behaviour, which the earlier version did not.

Stages of the Affective Taxonomy (Valette et al. 1972 p. 32)

Stage	Internal Behaviour	External Behaviour
1. Receptivity	Awareness (K)	Attentiveness (K)
2. Responsiveness	Tolerance (L)	Interest and Enjoyment (M, N)
3. Appreciation	Valuing (O)	Involvement
4. Internalization	Conceptualization	Commitment
5. Characterization	Integration	Leadership

The letters added in brackets by the present writer show how the new categorization corresponds to the older one. The classification system progresses from the student's neutral attitude towards foreign language study and culture to his voluntary active urge to learn more about them. It progresses from teacher-directed activities to self-direction. The first three stages are considered appropriate for high school students, with the higher stages demanding too much student initiative to be realistic at

the lowest and intermediate levels. Internalization means that a student has a personal system of values concerning foreign language study; he devotes time and energy to increasing his knowledge of the language and culture. Characterization means that a student has integrated foreign language values into his personal value system; he has a major role in promoting language learning and instruction.

It can be stated that Valette's modification closely resembles the original one; it might well be used to describe the affective behaviours of other subjects, with due changes in the content area. A detailed discussion of the differences and similarities between the two systems is not relevant to this study so they will not be further dealt with.

2.2.3. On the Relationships between the Two Domains

According to Valette the five stages of the taxonomy of subject matter goals approximately correspond to the five stages of behaviour in the affective domain. There is, however, no empirical evidence to support this assumption. Valette has presented a table of the interrelationships between subject-matter and affective taxonomies (p. 50). As an example it might be mentioned that the whole area of communication is covered by internalization which is explained in the following way: "The student begins to shape his own attitudes, val-

ues, and philosophy in relation to his foreign-language experiences. These concepts result in his strong preference for learning foreign languages and his decision to devote a major portion of his available time and energy to additional study" (p. 46). Now the question depends on communication and criteria. Students can achieve the stage of communication, where they are able to understand English whether spoken or written and make themselves undestood orally or in writing without, however, having a strong preference for English or deciding to devote most of their spare time to additional study. Intuitively, it seems that the achievement of the cognitive and the achievement of the affective goals do not go "hand in hand"; nor is the causal relationship between them clear.

2.2.4. On Criteria of Objectives of Foreign Language Teaching

The question of criteria will only be dealt with in connection with cognitive and psychomotor behaviours. This is not to imply that the affective area is less important but that there is not yet enough information on it. Setting the affective aims, selecting the content, organizing the instruction, and measuring the outcomes are all very problematic.

The cognitive goal of foreign language teaching that has long been accepted is the development of native-like ability to use the foreign language. This has been said to be essential to effective social behaviour in a foreign land (Lane et al. 1966).

Recently the justification of the criterion of native-like ability has been questioned. According to, for example, Ek (1971) we have to specify what deviations can be considered appropriate or acceptable. The criterion of native-like ability has especially been applied to pronunciation of foreign language. According to Lee (1972), we should be tolerant of different styles of pronunciation; Jakobovits (1970) considers it to be an aesthetic question whether or not we insist on correct speech. Communication is possible even if our phonology and syntax are not accurate; native speakers do not speak grammatically in everyday speech either. Especially now that English is taught so widely all over the world and as more variants in pronunciation become current there would not be much sense in trying to make everyone speak in a uniform way (Perren 1971). What is, however, most important is to teach students to understand different varieties of spoken English which they may hear. It has been suggested that a suitable model for audiocomprehension would be the uninhibited pronunciation of the man in the street, while the careful diction of the teacher should serve as the model for pronunciation (Leon 1966). Perren (1971) points out that we should concentrate on teaching what is demonstrably possible to achieve. It would mean that in Finland we should have to teach the kind of English that is employed here by competent Finnish adults who use English effectively.

There is an attempt to give some criteria in our Comprehensive School Curriculum (1970) e.g. "the student should be able to express himself reasonably well even in writing" (p. 89). The criteria are not, however, specific enough to be of any real help to the teacher. A further attempt at specification was made in a later curriculum (Nykykielct 1971) in which expressions such as "normal speech tempo" or "easy text" have been defined. It is evident that a lot of research has still to be done before it will be possible to give such criteria as would prove useful in practice in school situations. It is also worth considering whether it would be sufficient to state whether the behaviour has occurred or not without giving any criteria at all.

3. SOURCES OF INFORMATION ON OBJECTIVES IN FOREIGN LANGUAGE INSTRUCTION

Setting objectives is problematic and closely connected with the value system of society. Setting objectives of English teaching in countries where English is a second language should, according to White (1972), be determined by the following considerations:

- to what extent English is known in the country
- the ways in which it is used
- the forms of the language most commonly used
- the attitudes of the community towards the acquisition and use of English.

Generally speaking the objectives of foreign language programmes should be based on local needs, the needs of the country as well as the needs of the pupils (Elliott 1972; Gorosh 1970). According to Roininen (1971) the productive skills of speaking and writing are the most important for people employed in industry and commerce in Finland. It is interesting to note that Ahlquist (Lindell 1969) in Sweden found the most important skills for a representative group of Swedes to be listening and reading comprehension.

When investigating the need to know different content areas of mathematics and the Swedish language partly for further studies and vocational activities and partly for leisure time Dahllöf

(1960) used teachers in different types of schools, employers of certain categories within trade and industry and employees within certain occupations as sources of information. In a later study (1963) he used professors to rate the importance of different subjects for further studies.

Bjerstedt (1970) has presented a summary of different sources of information on objectives in his article. According to him the following sources are possible:

- texts e.g. official documents, curricula, textbooks, which offer a starting point. On the other hand, the information in official documents is often too general to be very useful; and the contents of textbooks are often defined by tradition;
- people carrying on a trade or profession where they need knowledge of or skills in the subject-matter area whose goals are being analysed;
- people working near the above mentioned group;
- teachers and pupils, who know the prevailing situation best;
- groups representing society in general.

Of the sources of information mentioned by Bjerstedt, curricula and teachers were made use of in a way to be specified below.

Since the needs of society, as well as the needs of pupils are emphasized in connection with objectives it is only natural that objectives should be rated according to their importance. The question of the priority of objectives has been stressed in

the literature on the subject (e.g. Bjerstedt 1970; Taylor 1966; Taylor et al. 1966) and it was the one employed in Niskanen's research (1973a) of which the present study constitutes a subject-related part. The question of the importance of different objectives is essential at the level of a single subject and it has been used in a study of general over-all objectives of foreign language teaching in different countries (Lewis 1968). Although importance has been chosen as the dimension in which the objectives are rated in this study, the writer is aware of the fact that there might be other dimensions equally essential, such as the motivational qualities of the objectives, their subject-matter value, or ease of implementation.

4. STATEMENTS OF OBJECTIVES

4.1. Cognitive and Psychomotor Domain

The preparation of objectives of the cognitive and psychomotor area was guided by the present curricula (Mietintö I and II 1970, Nykykielet 1971). The statements are, however, based mainly on the cognitive and psychomotor part of Valette's (1971) table of specifications for second-language instruction. Table 1, on page 33, is a simplified version of Valette's table which represents the objectives in terms of a two-dimensional chart, with student behaviours on one axis and content on the other. The intersections of the two axes form a grid, each cell combining the behaviour and content. The figures in the cells indicate the number of statements in that area. The shaded cells are those which are not represented in the statements, mainly because they are not mentioned in the curricula.

In the content area of language Valette also includes kinesics (body language), which is not even mentioned in our curricula. Teaching kinesics would be difficult for a non-native speaker and, as a matter of fact, even for a native speaker who has been abroad for long. Kinesics may not even be relevant in this connection with English as the target language.

Table 1. Specification of Objectives of Foreign Language Instruction

CONTENT	BEHAVIORS: Cognitive and psychomotor skills							
	Knowledge and perception				Manipulation		Understanding and production	
	A Knowledge of elements	B Ability to differentiate and discriminate among elements	C Knowledge of rules and patterns	D Ability to differentiate and discriminate among rules and patterns	E Ability to reproduce elements and patterns	F Ability to manipulate elements and patterns	G Ability to grasp explicit (surface) meaning of utterances and patterns G.1 paraphrase G.2 English equivalents	H Ability to produce utterances or patterns conveying the desired explicit meaning
1.0 Spoken language 1.1 Vocabulary 1.2 Grammar 1.3 Phonology	4	2	3	1	1	1	2	1
2.0 Written language 2.1 Vocabulary 2.2 Grammar 2.3 Spelling	3		3		1	1	2	1
3.0 Culture	3		1					
4.0 Communication							5	

Culture includes Valette's way-of-life culture (social structure, institutions and the value system of the people), civilization culture (history, geography and the scientific achievements), arts, and literature.

Communication is a global category combining language and culture. It is not divided further into the categories of face-to-face communication, telephone and message as Valette has done, because the member of statements had to be limited.

As for student behaviours the following two of Valette's categories are omitted from the area of understanding and production: ability to analyse utterances and patterns in terms of implicit (deep) meaning and ability to analyse utterances and patterns conveying the desired implicit meaning. The former includes the receptive skills of listening and reading when emphasis is on the deeper meaning of the recording or text. The latter includes the productive skills of speaking and writing when students want to express deeper levels of meaning. These areas are not mentioned in our present curricula probably because achieving these types of behaviour requires more experience with the language and culture than it is possible to give students in schools.

The statements of the objectives are to be found in Appendix 1, where they are presented in random order. An attempt was made to express the statements in terms of pupil behaviour, not, however, in all cases observable behaviour.

The area of knowledge e.g. actually consists of the behaviour categories of recognition and production. If that, however, had been taken into account in all cases the number of statements would have increased, which might have made the subjects unwilling to answer the questionnaire. For the same reason it was considered necessary to limit the length of the statemensts. Specifying the purpose of the statements as well as criteria and conditions would have greatly increased their length. Besides, it is the present writer's opinion that at this stage it is not possible to specify criteria and conditions even with those pupil behaviours the outcomes of which can be predicted. The question of whether it is desirable will not be dealt with here. Generally speaking the way in which objectives are expressed depends on the purpose for which they are used (Hälinen 1970).

As has already been mentioned the categories are those used by Valette (1971). There is some overlap, which must be remembered when the results are interpreted. For example, in considering the content of objective 7 (sound-symbol association), it can in fact be taken to belong to the area of both spoken and written language. Another example is number 8 (writing from dictation) which can be considered to belong to more than one category depending on the kind of task that is given to pupils.

The numbers of the statements of each area are given in the following:

A-1.0	4, 41, 36, 25
A-2.0	12, 30, 27
A-3.0	28, 19, 42
B-1.0	18, 31
C-1.0	17, 21, 7
C-2.0	5, 37, 23
C 3.0	14
D-1.0	11
E-1.0	9
E 2.0	16
F-1.0	45
F-2.0	13
G-1.0	24
G-2.0	40, 44
H-1.0	1
H-2.0	8
GH-4.0	33, 32, 29, 35, 43

The question whether the number of statements of each area is enough to cover it will be dealt with below in connection with validity.

4.2. Affective Domain

The preparation of statements of the objectives proved to be problematic in the affective domain, an area which really requires a study of its own. It had to be decided whether to tie the objectives to the content of English teaching or treat them

as far as possible, independently of the subject-matter content. The affective domains of both Valette's taxonomies (1971; Valette et al. 1972) are closely tied to the content of foreign language teaching. At the time when the instrument of this study was being prepared the later version was not available; the earlier one covered only part of the affective area. Using Valette's taxonomies as the basis for preparing the affective goals of the instrument would have resulted in statements such as the following, "the pupil is aware of the difference between the target language and the native language" or "he accepts the fact that other people speak other languages". These seemed trivial. Goals based on the higher stages of the later version would clearly be unrealistic for the majority of high school students.

It was decided not to tie the objectives of the affective domain to the content of English teaching except in those cases in which it is impossible to make a statement without referring to content. The decision is based on the following consideration: if the objectives of the affective domain are also tied to the content of specific subject matters there seems to be nothing with which to carry out the general aims of education. It is the affective domain that best represents the whole field of education (Kansanen 1971a); even the aims of social education can be treated as part of the affective domain (Niskanen 1973a). It would seem reasonable to assume that it is in the affective area that the objectives which are common to dif-

ferent subjects are to be found. These objectives have been called meta-objectives (Taylor 1966).

The categories of the affective domain of this study are the same as those employed by Niskanen in his study (1973a) namely interests, attitudes, values and integration of personality. The statements of the objectives are in part the same as in the study previously mentioned with the exception that verbs are used instead of nouns. The choice of the objectives was based on an analysis carried out by a group of foreign language teachers and foreign language university students who were studying education. The general aims of education of the comprehensive school were analysed as to their relevance to foreign language teaching. In this analysis Hakkarainen's collection of goal and objective statements concerning pupils in the Comprehensive School Curriculum (1971) was used. Those objectives of Niskanen's study which contained the same ideas as the general statements of educational aims considered relevant by the group of judges were selected. Statement no 34 (Appendix 1) was added because it was considered by the judges to be an important objective of English teaching.

The numbers of the statements and the categories which they represent are presented as follows. The statements are to be found in Appendix 1.

Interests: 15
Attitudes: 39, 26
Values: 34, 22, 2, 10, 3
Integration of Personality: 38, 6, 20

Whether the number of statements of each area is enough to cover it is a question which will be dealt with below in connection with validity.

5. PROBLEMS

The present study concentrates on teacher's notions of the importance of different objectives of foreign language instruction on three levels. The teacher's notions of educational objectives are based on the following three sources and interaction between them: his personal-social background, his training and his working environment (Kansanen 1972a). It is relevant to ask to what extent the teacher's activities are guided by his notions of objectives. The teacher's efficiency has been found to be related to how clear his educational objectives are (Koskenniemi et al. 1965). It would be reasonable to assume that teachers attempt to implement in their teaching those objectives which they consider important, a process which seems to be easier with the cognitive and psychomotor objectives than with the affective objectives.

The three levels chosen are elementary, intermediate and advanced level. Elementary level means grades III-IV (9-10-year-old pupils) of the comprehensive school, intermediate level grades VII-IX (13-15-year-old pupils), and advanced level means senior secondary school (16-18-year-old pupils). The elementary level is included because it is important to consider pupils who are beginning the study of a foreign language. The other two levels are important because pupils then leave school and specification of the terminal behaviour of

foreign language learning has to be made. Grades V-VI of the comprehensive school are not included because it might not have been possible for teachers to distinguish them from the elementary level on one hand and the intermediate level on the other.

First an answer is sought to the following question:

1. How is the importance of the objectives of English teaching rated by teachers at elementary, intermediate and advanced levels?

Attention will especially be given to the way the importance of the affective objectives is rated compared to the cognitive and psychomotor objectives. The affective objectives are considered to represent the general aims of education while the cognitive and psychomotor objectives are subject-related. In order to investigate the interrelationships of all the objectives of the three levels and especially the relationships between the objectives of the two domains an attempt will be made to answer the following question:

2. What are the dimensions of the importance of objectives at different levels?

In the curricula the cognitive and psychomotor objectives of foreign language instruction are expressed in practically the same way for all the levels; the only variation is in the amount of content. The affective aims of education are the same for the elementary and intermediate levels of the comprehensive school while the affective aims of education for

senior secondary school have not been officially stated at all. It is considered necessary to compare the dimensions of the importance of objectives to find out possible differences in the way the teachers appraised the objectives for the three levels. An answer is sought to the following question:

3. Are there differences in the dimensions of the importance of objectives at the three levels? If there are, by what objectives are they caused?

6. SUBJECTS

Information for the study was gathered in March-May, 1973. The questionnaires were answered anonymously by English teachers (N-100) of whom 71 were from comprehensive schools and from junior secondary schools and elementary schools which follow the Comprehensive School Curriculum and 29 were from Helsinki elementary schools.

When the choice of the subjects was made the National Board of Schools was contacted because the school system of Finland is being changed with some parts having the comprehensive school system and others still having the old one. From the list provided by the National Board of Schools those districts, both urban and rural, were chosen which have been experimenting with the new system or which follow the Comprehensive School Curriculum. The heads of the districts, who were contacted by telephone, promised to deliver the questionnaires to the teachers along with a letter from the National Board of Schools (Appendix 2) saying that the school authorities have no objection to this study being conducted. Of the 170 questionnaires 111 (65 percent) were returned, of which 40 had, however, to be discarded because of missing information. Of the 60 questionnaires delivered to elementary schools in Helsinki 29 (49 percent) were returned. Elementary school teachers were asked to fill in the questionnaires leaving no missing information,

which is a serious source of error, the same thing should have been done with the other teachers, too.

Besides the fact that the questionnaires were delivered just before the Easter holidays a possible reason for the low number of returns and missing information may have been the teacher's inability to answer the questionnaire. It may be difficult especially for young teachers to decide what objectives are essential and what less important (Heikkinen 1963). On the other hand there is also evidence to show that questions concerning aims become more problematic along with increasing years (Koskenniemi et al. 1965). Results of Kansanen's studies (1974b) indicate the same trend.

English teachers of senior secondary schools were not included in the sample as a special group but they can be found among the subjects, since the comprehensive school and senior secondary school can have the same teachers. The reason for not making a special attempt to include these teachers was the fact that the writer thinks their rating would possibly have been influenced by the school leaving examination, in which grammar and translation are emphasized. It is possible that this examination is going to be either abolished or reformed and there is much heated discussion about it especially at the time when it is held, namely spring, which coincided with the gathering of information for this study.

The subjects are considered to represent English teachers of

comprehensive school level in Finland. There are teachers from all the provinces of Finland including Uusimaa, which is the last to get the comprehensive school system. To what extent the type of school influences the way teachers appraise the objectives is not known. It is, however, known that they have all been given information of the Comprehensive School Curriculum but they have had little or no experience with comprehensive schools themselves.

26 of the subjects had taken the final examination in English at the highest level ("laudatur"), 59 at the intermediate level ("cum laude"), 9 at the lowest level ("approbatur") and 6 a special course. The group is very heterogeneous with regard to the other studies they have undergone to become teachers and the position they hold, which is natural at a time of change.

7. RESULTS

7.1. On the Instrument

The distributions of the ratings concerning each statement at each level were counted. In most cases the distributions approximated to the normal. The statements whose distributions were strongly deviant from the normal were 19 and 28 at the elementary level and 22 at the intermediate level. At the other levels the distributions of these statements approximated to the normal. With an instrument like this it would not be reasonable to expect each item to have a normal distribution. With some objectives there must be strong agreement as to their importance among the teachers. It was not considered necessary to discard the above-mentioned items on account of their distributions, since they are objectives of English teaching and it is essential to see how they relate to other objectives on each level. In addition, statistical analyses are not very sensitive to distributions not being normal (Mustonen 1965).

The intercorrelations of the objectives at each level are to be found in Tables 2-4 (Appendices 4-6). Judging by these correlations there are no objectives which measure the same thing. The correlations between the objectives at different levels are to be found in Tables 5-7 (Appendices 7-9). It is to be noted that in these tables the numbers used for objec-

tives at the elementary level are 1-45, the numbers of the objectives at intermediate level are 101-145, and those of the objectives at the advanced level are 201-245. Judging by the correlations of the importance of the same objective at three different levels the writer was justified in keeping the levels separate.

There is no empirical evidence available concerning the validity of measurement. The type of validity most relevant to the instrument employed in this research would be content validity, which expresses the degree to which the instrument samples the content. According to Nunnally (1967) content validity could be ensured by having a representative collection of items and by using "sensible" (p. 8) methods in the construction of instruments. In the present study it is hoped that all the objectives of foreign language instruction are represented in the instrument. Consequently, in this case there is no question of sampling the content. The construction of the instrument is based on Valette's specification of objectives, previous research (Niskanen 1973a), expert opinion and the present curricula. An example will be given to show how the curricula affected the construction of the instrument. Of the cognitive subareas, C-2 is represented by the following statements: "the pupil is able to answer questions on the content of a text he has read" and "the pupil is able to translate an English text into Finnish". However, C-1 is represented only by the following statement: "the pupil is able to answer questions

on something he has heard", because interpretation or translation from spoken English into Finnish is not included in the curricula. The present writer considers the instrument as a whole to have satisfactory content validity, which may not be true of some subareas of the instrument. For example the knowledge of culture is represented by four statements, which is far too few considering what is included in culture (p. 39). In the communication category there are no statements which explicitly include cultural material. The question of what cultural material to include and how to present it is a very important one and requires a study of its own. Interests are represented only by the following statement: "the pupil takes an active interest in English in his spare time". It might be thought necessary to make more statements of interests by having their content differentiated into spoken language, written language and culture. Since language, however, consists of spoken and written language and culture is always involved in language, these items are considered to be included in "interest in English". To make separate statements for each of them would have increased the number of statements, which might have made teachers unwilling to answer the questionnaire. For the same reason attitudes are only represented by two statements. As previously mentioned the affective area also requires a separate study.

The only estimates of reliability that are available are the communalities of the statements (Tables 2-3). There are a few

statements with rather low communalities; in most cases they are not, however, consistently low at each level.

7.2. Problem 1

The means, which tell how the importance of objectives was rated, and the standard deviations which tell us about the agreement between the raters, are to be found in Appendix 3. The numbers of the objectives belonging to the affective domain are underlined in the table. The most and the least important objectives of both of the domains on each level are given below with their means and standard deviations in brackets.

Elementary level

Cognitive and Psychomotor Domain

The most important objectives:

18. the pupil is able to discriminate two words from each other on hearing them (3.92, 0.97), B-1.10
25. the pupil is able to pronounce different sounds and sound combinations (3.88, 0.97), A-1.0
11. the pupil is able to discriminate two sentences from each other on hearing them (3.84, 0.96), D-1.0
31. the pupil is able to differentiate between sounds (3.76, 0.99), B-1.0

The least important objectives:

28. the pupil is able to mention English writers and their works (1.13, 0.51), A-3.0

8. the pupil is able to translate a Finnish text into English in writing (1.22, 0.66), H-2.0

19. the pupil is able to mention geographical places in England (1.28, 0.56), A-3.0

43. the pupil is able to communicate with an English-speaking person in writing (1.38, 0.65), GH-4.0

Affective Domain

The most important objectives:

22. the pupil is not afraid of speaking English (4.60, 0.83)

26. the pupil develops a positive attitude towards the study of English (4.41, 0.83)

34. the pupil wants to use English on his own initiative (3.99, 1.04)

39. the pupil develops a positive attitude towards English-speaking people (3.33, 1.04)

The least important objective:

15. the pupil takes an active interest in English in his spare time (2.10, 0.94)

Intermediate level

Cognitive and Psychomotor Domain

The most important objectives:

25. the pupil is able to pronounce different sounds and sound combinations (4.02, 0.77), A-1.0

11. the pupil is able to discriminate two sentences from each other on hearing them (3.95, 0.85), D-1.0

18. the pupil is able to distinguish two words from each other on hearing them (3.89, 0.97), B-1.0

17. the pupil is able to produce grammatical structures orally (3.86, 0.82), C-1.0

The least important objectives:

28. the pupil is able to mention English writers and their works (1.66, 0.71), A-3.0
16. the pupil is able to copy sentences (1.81, 1.05), E-2.0
19. the pupil is able to mention geographical places in England (2.02, 0.86), A-3.0
42. the pupil is able to mention features typical of life in England (2.21, 0.71), A-3.0

Affective Domain

The most important objectives:

22. the pupil is not afraid of speaking English (4.62, 0.77)
26. the pupil develops a positive attitude towards the study of English (4.31, 0.94)
34. the pupil wants to use English on his own initiative (4.11, 0.93)
39. the pupil develops a positive attitude towards english speaking people (3.44, 1.04)

The least important objective:

20. the pupil develops empathy (2.58, 0.82)

Advanced level

Cognitive and Psychomotor Domain

The most important objectives:

35. the pupil is able to talk with an English-speaking person (4.24, 0.87), GH-4.0
17. the pupil is able to produce grammatical structures orally (4.08, 0.91), C-1.0
4. the pupil knows the stress and intonation pattern of the language (4.06, 0.81), A-1.0
25. the pupil is able to pronounce different sounds and sound combinations (4.04, 0.92), A-1.0

The least important objectives:

16. the pupil is able to copy sentences (1.68, 1.07), E-2.0
19. the pupil is able to mention geographical places in England (2.28, 0.95), A-3.0
28. the pupil is able to mention English writers and their works (2.44, 0.87), A-3.0
9. the pupil is able to repeat sentences and dialogues (2.43, 1.14), E-1,0

Affective Domain

The most important objectives:

22. the pupil is not afraid of speaking English (4.62, 0.81)
26. the pupil develops a positive attitude towards the study of English (4.28, 0.99)
34. the pupil wants to use English on his own initiative (4.23, 0.85)
38. the pupil is able to work independently and purposefully (3.54, 0.99)

The least important objective:

20. the pupil develops empathy (2.65, 0.89)

At the elementary level the most important objectives in the cognitive and psychomotor domain are connected with pronunciation and discrimination and mainly concern the psychomotor area. The importance of these objectives seems to remain consistent throughout the other levels. Objectives connected with culture and skill in writing are regarded as the least important. Their importance, however, slightly increases at the other levels. As far as the relationship between the two domains is concerned the objectives in the affective domain are considered more important than the others. The most important affective goals are those connected with the content of English teaching and they are considered the most important in the affective area even on the intermediate level.

At the intermediate level the most important objectives in the cognitive and psychomotor domain are also connected with pronunciation and discrimination in the same way as at the elementary level. Here, however, producing grammatical structures and recognizing them when heard are also considered among the most important objectives. Their importance increases at the advanced level where the least important objectives concern culture and copying, which is considered the most important at the elementary level. The objectives in the affective area are the same as above, with the exception of the least important of them which is empathy. It is the least important objective of the affective domain even at the advanced level.

At the advanced level the most important of the objectives in the cognitive and psychomotor area is the pupil's ability to talk with an English-speaking person. The other objectives also stress oral ability. The mechanical skills of copying and repeating, and cultural items are considered the least important. In the affective area it is interesting to note that it is not until this level that an objective with no special content of English is considered among the most important.

As can be seen from the means almost all the objectives are considered more important at the advanced level than at the lower levels. The teachers' rating of the importance of objectives suggests that written language is a neglected area. The most important cognitive and psychomotor objectives fall in the area of spoken language with student behaviours representing the category of knowledge and perception (A, B, C, D-1.0). The only exception is the following statement: "the pupil is able to talk with an English-speaking person", which was rated as the most important objective at the advanced level. In that statement the content area is also spoken language but the student behaviour represents a higher category. Table 2 on the next page presents a summary of what was previously said on the objectives in the cognitive and psychomotor area. Each level is presented by its initial letter. Capital letters stand for the most important objectives and small letters for the least important.

Table 2. The objectives rated as the most important and the least important at each level

CONTENT	BEHAVIORS A	B	C	D	E	F	G	H
1.0 Spoken language 1.1 Vocabulary 1.2 Grammar 1.3 Phonology	E I AA	E E I	I A	E I	a			
2.0 Written language 2.1 Vocabulary 2.2 Grammar 2.3 Spelling					i a			e
3.0 Culture	ee iii aa							
4.0 Communication							A e	

Standard deviations tell us about agreement on the importance of objectives among the raters. The objectives with the greatest disagreement are given below with means and standard deviations in brackets:

Elementary level

16. the pupil is able to copy sentences (2.23, 1.20), E-2.0
4. the pupil knows the stress and intonation pattern of the language (3.35, 1.14), A-1.0
35. the pupil is able to talk with an English-speaking person (2.63, 1.14), GH-4.0

Intermediate level

3. the pupil develops a sense of responsibility (3.10, 1.09)
16. the pupil is able to copy sentences (1.81, 1.05), E-2.0

Advanced level

3. the pupil develops a sense of responsibility (3.26, 1.19)
9. the pupil is able to repeat sentences and dialogues (2.43, 1.14), E-1.0

Differences in the way the teachers appraised the objectives could be attributed to their personal-social backgrounds and perhaps also to an initial lack of knowledge of objectives due to deficiencies in their training. The subjects' experiences as teachers could also cause differences (Kansanen 1971b; Koskenniemi et al. 1965; J. Leino 1974).

7.3. Problem 2

Factor-analyses, which reveal the dimensions of the importance of objectives, were carried out to investigate the interrelationships of the objectives at the three levels and especially the relationships between the objectives of the two domains.

Factorization was performed by the principal axes method. The unrotated factor matrices are presented in Tables 8-10 (Appendices 10-12). The Varimax-rotated factor matrices are to be found in Tables 3-5 on the following pages. Four-factor solutions were chosen as the basis of interpretations on each level. Consideration was given to the ease of interpretation, the size of the sample, and the number of variables. The eigenvalues of the following factors would have justified the inclusion of the fifth factor on the elementary and advanced level.

Table 3. Rotated Factor Matrix. Elementary Level. (N=100)

	I	II	III	IV	h^2
1	.61	-.11	.00	-.05	.38
2	.14	-.07	.30	.19	.16
3	-.18	-.01	-.07	.70	.54
4	-.05	.33	.36	-.03	.25
5	.65	-.06	-.11	.02	.44
6	-.02	-.05	.12	.74	.57
7	.43	.28	.14	-.09	.29
8	.65	-.30	.10	.03	.52
9	-.06	.19	.03	.05	.04
10	-.11	.11	.02	.77	.62
11	-.21	.75	-.08	.06	.62
12	.66	.07	-.03	-.21	.48
13	.72	.06	-.05	-.00	.52
14	.51	.04	.19	-.16	.32
15	.11	.07	.42	-.19	.24
16	.37	.00	-.26	.10	.21
17	-.03	.55	.27	-.08	.38
18	-.25	.76	.01	-.05	.65
19	.51	-.26	-.00	-.05	.33
20	-.02	-.08	.33	.32	.22
21	-.12	.53	-.02	.01	.29
22	-.35	.19	.50	.03	.41
23	.59	.02	-.02	-.04	.35
24	.28	.12	.50	.14	.36
25	-.14	.58	.31	-.13	.39
26	-.32	.27	.36	.15	.33
27	.56	-.08	.08	-.23	.39
28	.65	-.36	.13	-.06	.56
29	.56	.05	.11	-.02	.32
30	.24	.35	-.20	.00	.21
31	-.18	.55	-.03	.23	.39
32	.53	-.14	.25	.18	.39
33	.19	.06	.54	.03	.34
34	-.27	.13	.59	-.07	.44
35	-.05	-.05	.65	.10	.44
36	.11	.52	.13	-.11	.31
37	.25	.51	.05	-.09	.33
38	-.08	-.10	.61	.23	.44
39	.05	.10	.34	.41	.29
40	.61	-.08	.00	.07	.38
41	.07	.50	.03	.09	.26
42	.58	.12	.13	.08	.37
43	.64	-.22	.17	-.18	.52
44	.30	.23	.42	-.00	.32
45	.40	.22	.18	.32	.34
Eigenvalues	6.86	4.11	3.42	2.54	16.94
Eigenvalues as a percentage of the number of variables	15.3	9.1	7.6	5.7	37.7

Factor I	1	the pupil is able to translate orally from Finnish into English, H-1.0	.61
	5	the pupil is able to produce grammatical structures in writing, C-2.0	.65
	7	the pupil is able to relate the word heard to the corresponding written symbol, C-1.0	.43
	8	the pupil is able to translate a Finnish text into English in writing, H-2.0	.65
	12	the pupil is able to produce words in writing, A-2.0	.66
	13	the pupil is able to manipulate a sentence in writing, F-2.0	.72
	14	the pupil is able to describe habits and customs of Englishmen, C-3.0	.51
	16	the pupil is able to copy sentences, E-2.0	.37
	19	the pupil is able to mention geographical places in England, A-3.0	.51
	23	the pupil is able to spell words correctly, C-2.0	.59
	27	the pupil is able to read phonetic writing, A-2.0	.56
	28	the pupil is able to mention English writers and their works, A-3.0	.65
	29	the pupil is able to write from dictation, GH-4.0	.56
	32	the pupil is able to write on a given topic, GH-4.0	.53
	40	the pupil is able to translate an English text into Finnish, G-2.0	.61
	42	the pupil is able to mention features typical of life in England, A-3.0	.58
	43	the pupil is able to communicate with an English-speaking person in writing, GH-4.0	.64

With one exception, the content area of the objectives of this factor is written language or culture which is closely related to language. All areas of pupil behaviours are represented. This factor is called a factor of the cognitive and psychomotor objectives of written language.

Factor II	11	the pupil is able to discriminate two sentences from each other on hearing them, D-1.0	.75
	17	the pupil is able to produce grammatical structures orally, C-1.0	.55
	18	the pupil is able to differentiate words from each other on hearing them, B-1.0	.76
	21	the pupil knows the meaning of the grammatical structure which he has heard, C-1.0	.53
	25	the pupil is able to pronounce different sounds and sound combinations, A-1.0	.50
	31	the pupil is able to differentiate between sounds, B-1.0	.55
	36	the pupil knows the meaning of a word he has heard, A-1.0	.52
	37	the pupil knows the meaning of a written grammatical structure, C-2.0	.51
	41	the pupil is able to produce words orally, A-1.0	.50

Factor II consists of objectives which concern spoken language. There is one exception, however, to indicate that it is not possible to keep objectives of spoken and written language entirely separate. Pupil behaviours fall in the areas of knowledge and perception. Most of them represent psychomotor skills with differentiation or discrimination objectives having the highest loadings. The factor is called a factor of the knowledge and perception objectives of spoken language.

Factor III	15	the pupil takes an active interest in English in his spare time	.42
	22	the pupil is not afraid of speaking English	.50
	24	the pupil is able to answer questions on something he has heard, G-1.0	.50
	33	the pupil is able to speak on a given topic, GH-4.0	.54
	34	the pupil wants to use English on his own initiative	.59
	35	the pupil is able to talk with an English-speaking person, GH-4.0	.65
	38	the pupil is able to work independently and purposefully	.61

This factor consists of affective objectives, three of which are tied to the content of English. The cognitive objectives concern understanding and producing spoken language. The factor is called a factor of the objectives of the affective domain and oral communication.

Factor IV	3	the pupil develops a sense of responsibility	.70
	6	the pupil develops perseverance	.74
	10	the pupil develops co-operation	.77
	39	the pupil develops a positive attitude towards English-speaking people	.41

This factor consists of objectives of the affective domain. The objective with the lowest loading is tied to the content of English, the others are not. The factor is called a factor of general affective aims in English teaching.

Table 4. Rotated Factor Matrix. Intermediate Level. (N=100).

	I	II	III	IV	h^2
1	-.01	.41	.14	.02	.19
2	-.07	.05	.45	.03	.21
3	.12	-.03	.78	-.09	.64
4	.13	-.05	.06	.19	.15
5	.02	.51	.13	-.19	.33
6	.14	.03	.78	.00	.62
7	.37	.32	-.05	-.16	.27
8	-.18	.62	.01	.14	.44
9	.09	-.16	.35	-.28	.21
10	.19	-.03	.71	-.05	.54
11	.68	-.06	.25	-.02	.53
12	.13	.52	.11	-.11	.31
13	.01	.49	.10	-.07	.26
14	.11	.56	-.10	.14	.35
15	.05	.10	-.04	.46	.23
16	-.06	.41	-.10	-.18	.21
17	.42	.01	.20	.18	.25
18	.75	-.12	.18	.07	.61
19	-.15	.54	-.04	-.03	.31
20	.03	.11	.63	.18	.44
21	.54	-.02	.14	.12	.33
22	.33	-.23	.17	.48	.47
23	-.00	.54	.02	-.13	.31
24	.18	.11	-.01	.44	.24
25	.51	-.09	.14	.34	.40
26	.26	-.21	.34	.30	.32
27	.35	.23	.10	.00	.19
28	-.08	.64	-.09	.06	.42
29	.22	.48	-.13	.15	.32
30	.60	.20	-.01	-.15	.42
31	.72	-.09	.21	.07	.57
32	-.02	.43	.18	.35	.34
33	-.02	.11	.12	.63	.42
34	.32	-.26	.03	.58	.50
35	-.00	-.13	.12	.67	.48
36	.54	.06	-.19	.17	.36
37	.51	.19	-.17	.27	.43
38	.05	.00	.46	.39	.36
39	.13	.13	.41	.16	.24
40	.07	.50	.03	.11	.27
41	.58	.00	-.03	-.02	.33
42	.09	.56	-.00	.09	.33
43	-.01	.55	-.03	.33	.41
44	.17	.22	-.16	.54	.39
Eigenvalues	4.60	4.71	3.47	3.32	16.11
Eigenvalues as a percentage of the number of variables	10.2	10.5	7.7	7.4	35.8

Factor I	11	the pupil is able to discriminate two sentences from each other on hearing them, D-1.0	.68
	17	the pupil is able to produce grammatical structures orally, C-1.0	.42
	18	the pupil is able to discriminate two words from each other on hearing them, B-1.0	.75
	21	the pupil knows the meaning of the grammatical structure which he has heard, C-1.0	.55
	25	the pupil is able to pronounce different sounds and sound combinations, A-1.0	.51
	30	the pupil knows the meaning of written words, A-2.0	.60
	31	the pupil is able to differentiate between sounds, B-1.0	.72
	36	the pupil knows the meaning of a word he has heard, A-1.0	.54
	37	the pupil knows the meaning of a written grammatical structure, C-2.0	.54
	41	the pupil is able to produce words orally, A-1.0	.58

The factor consists of objectives which concern spoken language. There are two exceptions, however, which shows that the objectives of spoken and written language cannot be kept separate, although the emphasis is on spoken language. Pupil behaviours fall in the areas of knowledge and perception. Most of them represent psychomotor skills with differentiation or discrimination objectives having the highest loadings. This factor is called a factor of the knowledge and perception objectives of spoken language in the same way as the second factor of the elementary level, which it resembles.

Factor II	5	the pupil is able to produce grammatical structures in writing, C-2.0	.51
	8	the pupil is able to translate a Finnish text into English in writing, H-2.0	.62
	12	the pupil is able to produce words in writing, A-2.0	.52
	13	the pupil is able to manipulate a sentence in writing, F-2.0	.49
	14	the pupil is able to describe habits and customs of Englishmen, C-3.0	.56
	16	the pupil is able to copy sentences, F-2.0	.41
	19	the pupil is able to mention geographical places in England, A-3.0	.54
	23	the pupil is able to spell words correctly, C-2.0	.54
	29	the pupil is able to write from dictation, GH-4.0	.48
	32	the pupil is able to write on a given topic GH-4.0	.43
	40	the pupil is able to translate an English text into Finnish, G-2.0	.58
	42	the pupil is able to mention features typical of life in England, A-3.0	.56
	43	the pupil is able to communicate in writing with an English-speaking person, GH-4.0	.56

The content of the objectives of this factor is written language, or, in three cases, culture which is always involved in language. All areas of pupil behaviours are represented. With the possible exception of copying, they can be considered to belong to the cognitive area. This factor is called a factor of the cognitive and psychomotor objectives of written language.

Factor III	2	the pupil develops international understanding	.45
	3	the pupil develops a sense of responsibility	.78
	66	the pupil develops perseverance	.78
	10	the pupil develops co-operation	.71
	20	the pupil develops empathy	.63
	38	the pupil is able to work independently and purposefully	.46
	39	the pupil develops a positive attitude towards English-speaking people	.41

The factor consists of the objectives of the affective area which are not tied to the content of English teaching with the exception of a positive attitude towards English-speaking people. The factor is called a factor of the general affective aims in English teaching.

Factor IV	15	the pupil takes an active interest in English in his spare time	.46
	22	the pupil is not afraid of speaking English	.49
	24	the pupil is able to answer questions on something he has heard, G-1.0	.44
	33	the pupil is able to speak on a given topic, GH-4.0	.63
	34	the pupil wants to use English on his own initiative	.58
	35	the pupil is able to talk with an English-speaking person, GH-4.0	.67
	44	the pupil is able to answer questions on the content of a text he has read, G-2.0	.54

Objectives of communication skills are loaded in this factor. The other objectives belong to the affective are with English as the content. The factor is called a factor of the objectives of communication and the affective domain.

Table 5. Rotated Factor Matrix. Advanced Level. (N=100)

	I	II	III	IV	h^2
1	.00	.49	.29	.16	.35
2	.02	-.06	.62	.03	.39
3	.08	.02	.84	-.02	.71
4	.37	-.04	.08	-.01	.15
5	.00	.44	.19	.16	.26
6	.05	.17	.79	.09	.66
7	.53	.34	.07	.13	.41
8	-.03	.62	.13	.21	.45
9	.33	.32	.21	-.27	.33
10	.22	.02	.67	.02	.49
11	.76	.14	.12	.00	.61
12	.24	.45	.09	.07	.27
13	.47	.34	.06	-.07	.35
14	.04	.55	-.04	.00	.30
15	.05	.09	-.12	.50	.28
16	.09	.31	-.18	-.19	.17
17	.48	.18	.22	.25	.37
18	.85	.04	.12	.02	.75
19	.00	.54	-.08	-.06	.30
20	.23	.11	.56	-.02	.37
21	.61	.11	.24	.29	.52
22	.54	-.19	.28	.32	.51
23	.36	.53	.13	-.01	.43
24	.29	.26	.06	.44	.35
25	.22	.00	.11	.12	.54
26	.30	-.14	.33	.28	.36
27	.48	.38	.11	-.01	.39
28	.02	.71	-.02	.12	.51
29	.44	.41	-.07	.17	.39
30	.62	.15	.08	.30	.51
31	.73	.07	.16	.09	.57
32	.15	.32	.24	.53	.46
33	.12	.04	.27	.60	.45
34	.44	-.25	.21	.45	.50
35	.13	-.10	.08	.61	.41
36	.55	.01	-.07	.31	.41
37	.43	.16	-.10	.46	.43
38	.28	.10	.43	.28	.36
39	.22	.16	.39	.06	.23
40	.09	.61	.06	.29	.49
41	.60	.16	.08	.20	.42
42	.24	.55	.05	-.00	.36
43	.04	.15	.10	.53	.49
44	.26	.29	-.06	.50	.40
45	.52	.37	.13	.13	.44
Eigenvalues	6.95	4.78	3.71	3.44	18.88
Eigenvalues as a percentage of the number of variables	15.4	10.6	8.2	7.6	41.8

Factor I	7	the pupil is able to relate the word heard to the corresponding written symbol, C-1.0	.53
	11	the pupil is able to discriminate two sentences from each other on hearing them, D-1.0	.76
	13	the pupil is able to manipulate a sentence in writing, F-2.0	.47
	17	the pupil is able to produce grammatical structures orally, C-1.0	.48
	18	the pupil is able to discriminate two words from each other on hearing them, B-1.0	.85
	21	the pupil knows the meaning of the grammatical structure which he has heard, C-1.0	.61
	22	the pupil is not afraid of speaking English	.54
	25	the pupil is able to pronounce different sounds and sound combinations, A-1.0	.72
	27	the pupil is able to read phonetic writing, A-2.0	.48
	30	the pupil knows the meaning of written words, B-1.0	.62
	31	the pupil is able to differentiate between sounds, B-1.0	.73
	36	the pupil knows the meaning of a word he has heard, A-1.0	.55
	41	the pupil is able to produce words orally, A-1.0	.60
	45	the pupil is able to manipulate a sentence orally, F-1.0	.52

The content of the objectives is spoken language except in two cases, one of which concerns reading phonetic writing and could also be considered to belong to the area of spoken language. Most student behaviours fall in the area of knowledge and perception. The factor is called a factor of knowledge and perception objectives of spoken language.

Factor II	1	the pupil is able to translate orally from Finnish into English, H-1.0	.49
	5	the pupil is able to produce grammatical structures in writing, C-2.0	.44
	8	the pupil is able to translate a Finnish text into English in writing, H-2.0	.62
	12	the pupil is able to produce words in writing, A-2.0	.45
	14	the pupil is able to describe habits and customs of Englishmen, C-3.0	.55
	19	the pupil is able to mention geographical places in England, A-3.0	.54
	23	the pupil is able to spell words correctly, C-2.0	.53
	28	the pupil is able to mention English writers and their works, A-3.0	.71
	40	the pupil is able to translate an English text into Finnish, G-2.0	.63
	42	the pupil is able to mention features typical of life in England, A-3.0	.55

With one exception the content of the objectives is written language or culture, which are closely interwoven. Pupil behaviours fall in the area of knowledge, understanding, and production. The last two are represented by translation. The factor is called a factor of knowledge and translation objectives of written language.

Factor III	2	the pupil develops international understanding	.62
	3	the pupil develops a sense of responsibility	.84
	6	the pupil develops perseverance	.79
	10	the pupil develops co-operation	.67
	20	the pupil develops empathy	.56
	38	the pupil is able to work independently and purposefully	.43

The factor consists of objectives of the affective area which are not tied to the content of English teaching. The factor is called a factor of the general affective aims in English teaching.

Factor IV	15	the pupil takes an active interest in English in his spare time	.50
	24	the pupil is able to answer questions on something he has heard, G-1.0	.44
	32	the pupil is able to write on a given topic, GH-4.0	.53
	33	the pupil is able to speak on a given topic, GH-4.0	.60
	35	the pupil is able to talk with an English-speaking person, GH-4.0	.61
	43	the pupil is able to communicate with an English-speaking person in writing, GH-4.0	.53
	44	the pupil is able to answer questions on the contents of a text he has read, G-2.0	.50

The content area of the objectives is the global category of communication with student behaviours being understanding and production. The factor is called a factor of the objectives of communication.

Problem 3

In order to get information on the invariance of the factors between the three levels, use was made of symmetric transformation analysis (Mustonen 1966) employed in previous educational studies e.g. by Niskanen (1968). Transformation matrices will only be presented since they showed a good correspondence between the factors, which could, in fact, be seen by mere intuitive inspection of the factors. Had there been more variance between the factors it would have been necessary to investigate what objectives caused it. Transformation matrices are presented in Tables 6-8. The following numbers are used in the tables to present the levels:

1 = elementary level
2 = intermediate level
3 = advanced level

Table 6. Transformation Matrix L(1,2)

		intermediate level			
		1	2	3	4
elementary level	1	.07	.99	.03	-.01
	2	.99	-.07	-.03	.03
	3	-.03	.01	.18	.98
	4	.03	-.03	.98	-.18

Table 7. Transformation Matrix L(1,3)

		advanced level			
		1	2	3	4
elementary level	1	.09	.99	.06	.02
	2	.98	-.08	-.14	.07
	3	-.03	-.04	.27	.96
	4	.14	-.07	.94	-.26

Table 8. Transformation Matrix L(2,3)

		advanced level			
		1	2	3	4
intermediate level	1	.99	.02	.04	.03
	2	-.01	.99	.01	-.11
	3	-.04	-.00	.99	.09
	4	-.02	.11	-.09	.98

The transformation matrices show a good correspondence between the factors of the importance of objectives at the three levels. This can be due to the fact that because spoken language had been neglected for a long time it is now considered the most important content area at each level. It can also be asked whether the similarity is due to the form of the questionnaire or the fact that the teachers rated the importance of the objectives at each level no matter whether they teach it or not. As for the questionnaire the ratings were close to each other on the same line. It might be assumed that the way an objective was rated at one level would have influenced the way it was rated at another level. There is no way of knowing to what extent this is true.

On the other hand, however, the shift from the elementary level to the intermediate level is a gradual, not a sudden one, which is also true of the shift from the intermediate level to the advanced level. Thus, in any case, it is quite natural that the same objectives are correlated with each other at different level. As for the subjects it was the writer's purpose to have the same teachers appraise the objectives at each level irrespective of the fact whether they teach at that level or not. Finding samples of teachers who only teach at the elementary level, or intermediate level or advanced level would be very difficult since teachers usually teach at different levels, which vary from year to year. In any case, teachers should be aware of what precedes and comes after the level at which they happen to be teaching. If this is not the case, as the results of this study seem to indicate, teachers should be given proper continuation training.

8. DISCUSSION

Of the objectives in the cognitive and psychomotor domain those with spoken language as content and knowledge and perception as pupil behaviours were rated as the most important at all levels. None of the objectives in the affective domain were considered unimportant. The most important at each level were those tied to the content of English teaching. The fact that there was only little change in the ratings of the importance of objectives at different levels was also to be seen in the factor-analyses which were carried out to find out the dimensions of the importance of objectives. The importance of the objectives of the affective domain was mainly connected with the communication objectives. The good correspondence between the factor structures was shown by the transformation analysis.

If it can be assumed that there is nothing in the form of the statements that caused the teachers to answer the way they did and if it can be assumed that the priority given to certain objectives shows what areas are emphasized in the teaching of English at different levels, it seems that the content area of written language and student behaviours which are higher in the taxonomy are given too little attention. This is partly true of communication, too. Spoken language had previously been neglected for a long time, which may account for the emphasis now put on it. Written language becomes, however, more important at the inter-

mediate and advanced levels since pupils will be more and more dependent on it even when they want to improve their skill in speaking (Lockett 1972). Besides, it has been found that reading comprehension is retained longer than the other skills and it is easy for pupils to maintain standards in it themselves (Allen et al. 1972; Rivers 1968). It must, however, be remembered that the teachers who answered the questionnaire mainly represent the comprehensive school level. Senior secondary school teachers might have emphasized other areas. They were not included in the sample as a special group for reasons previously given but there are replies from those who teach both in senior secondary schools and at the comprehensive school level.

It seems to the present writer that the most problematic areas in foreign language teaching in Finland are the intermediate and advanced level. At the intermediate level the question is what comes after the so-called audiolingual phase of the elementary level. The fact that written communication is a part of the function of language should gradually be given more attention without neglecting oral practice. On this level the question of how to motivate pupils can be especially problematic. At the advanced level one of the problems is whether there is going to be a school leaving examination or not. The term "school leaving examination" is preferred to matriculation examination since the latter has lost its original meaning as an entrance examination to university. If there is going to be an examination it should evaluate the achievement of all the objectives of foreign language instruction.

not only some of them as has been the case so far.

The role of objectives in teacher training has been emphasized in previous studies of educational aims and in the literature on the subject in Finland (Hälinen 1970; Kansanen 1971a,b, 1973; Koskenniemi et al. 1965; Koskenniemi et al. 1970; Niskanen 1973a). In the training of teachers of foreign languages more attention should be given to the objectives at different levels. There should be a gradual shift from the lower student behaviours to the higher ones without forgetting any of the content areas. At least some of the lower-level objectives, such as learning correct habits of spelling, pronunciation, and sound-symbol association should be achieved at the elementary level so that they would not have to be given so much importance later on. Teachers should be made aware of the sequence of foreign language study and they should be encouraged to visit the classes of their colleagues in their own school and in other schools. Co-operation with teachers in other subject areas will also be needed. It has been said, for instance, that foreign language teaching can promote international understanding best in correlation with other studies (Johnston 1967). Foreign language instruction has, on the other hand, been accused of isolation from the rest of the instructional program (Ort and Smith in Chastain 1971). Bosco et al. (1970) have analysed the way foreign languages have been taught in the past and make the following predictions: instruction will be more creative, personalized and communication oriented. The presentation of linguistic items will be cyclic, leading gradually to their use in

communication situations. Synthetic, integrating language programmes stressing the communicative quality of language will be used instead of analytically oriented ones. More attention will be given to cognitive processes instead of psychomotor ones. It is evident that the role of the foreign language teacher is going to be changed, it will become more complex and require more flexibility than before.

The research will be continued with subjects who have not yet started their teaching on the one hand and teachers with long experience on the other who will rate the importance of the objectives of the present study. Previous studies indicate that the way objectives are appraised is related to teaching experience (Kansanen 1971b; Koskenniemi et al. 1965; J. Leino 1974). To investigate this point might have implications for teacher training and for continuation training of teachers. It is also the present writer's intention to have pupils and possibly parents, too, rate the importance of objectives at the intermediate and advanced level. Of the content areas in the cognitive and psychomotor domain culture really requires study of its own. Cultural content has not been considered very important, which may partly be due to the fact that it was represented by traditional items with knowledge as pupil behaviour. "Traditional" refers to the way cultural items are usually presented in foreign language instruction. As was previously mentioned the affective domain would also need further specification. Specification of the objectives of foreign language instruction is a necessary step in defining teaching processes, learning materials, media, and social learning environment.

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APPENDICES

Appendix 1

Dear English teacher

At the Institute of Education of Helsinki University a large research into different subjectwise aims has been started by Erkki A. Niskanen, associate professor. This questionnaire concerns objectives of English teaching at elementary, intermediate and advanced levels. Elementary level means grades III-IV (9-10-year-old pupils) of the comprehensive school, intermediate level means grades VII-IX (13-15-year-old pupils) of the comprehensive school and advanced level senior secondary school (16-18-year-old pupils). I would like you to fill in the questionnaire rating the importance of each objective at each level no matter whether you have taught the level in question or not. It will take about 20-30 minutes. I would like you to return the questionnaire within a week.

Instruction as to how to do the rating

There is a list of objectives of English teaching in the questionnaire. Rate the importance of each objective at each level using the scale 1-5.

1= not very important
2= quite important
3= important
4= very important
5= extremely important

Use the scale in the same way as the teacher in assigning grades. "important" is used most often at each level, "quite important" and "very important" relatively often and "not very important" and "extremely important" quite seldom. Thus your rating should approximate the normal distribution at each level.

For further information contact the undersigned

Anna-Liisa Leino
English teacher
assistant
te .(home) 90/541[illegible]
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Rate the importance of each of the objectives of English teaching at different levels using the scale 1-5. Mark your choice (1,2, 3,4, or 5) in the cells in front of the objective.

	elementary	intermediate	advanced	An objective is that the pupil
1.				is able to translate orally from Finnish into English
2.				develops international understanding
3.				develops a sense of responsibility
4.				knows the stress and intonation pattern of the language
5.				is able to produce grammatical structures in writing
6.				develops perseverance
7.				is able relate the word heard to the corresponding written symbol
8.				is able to translate a Finnish text into English in writing
9.				is able to repeat sentences and dialogues
10.				develops co-operation
11.				is able to distinguish two sentences from each other on hearing them (e.g. he's watching the ship, he's washing the sheep)
12.				is able to produce words in writing
13.				is able to manipulate a sentence in writing (e.g. by changing its tense)
14.				is able to describe habits and customs of Englishmen
15.				takes an active interest in English in his spare time
16.				is able to copy sentences
17.				is able to produce grammatical structures orally
18.				is able to distinguish two words from each other on hearing them (e.g. big, pig)
19.				is able to mention geographical places in England
20.				develops empathy

Appendix 1 (cont.)

	ele- men- tary	inter- medi- ate	ad- vanced	An objective is that the pupil
21.				knows the meaning of the grammatical structure he has heard
22.				is not afraid of speaking English
23.				is able to spell words correctly
24.				is able to answer questions on something he has heard
25.				is able to pronounce different sounds and sound combinations
26.				develops a positive attitude towards the study of English
27.				is able to read phonetic writing
28.				is able to mention English writers and their works
29.				is able to write from dictation
30.				knows the meaning of written words
31.				is able to differentiate between sounds (e.g. thin, that)
32.				is able to write on a given topic
33.				is able to speak on a given topic
34.				wants to use English on his own initiative
35.				is able to talk with an English-speaking person
36.				knows the meaning of a word he has heard
37.				knows the meaning of a written grammatical structure
38.				is able to work independently and purposefully
39.				develops a positive attitude towards English-speaking people

Appendix 1 (cont.)

	ele-mentary	inter-mediate	ad-vanced	An objective is that the pupil
40.				is able to translate an English text into Finnish
41.				is able to produce words orally
42				is able to mention features typical of life in England
43.				is able to communicate with an English-speaking person in writing
44.				is able to answer questions on the contents of a text he has read
45.				is able to manipulate a sentence orally (e.g. by changing the tense)

What is your official position? _____

What are the studies you have taken to become a teacher? _____

What are your studies of English: (mark with a cross)

laudatur _____
cum laude _____
approbatur _____
a special course _____

something else What? _____

KOULUHALLITUS
Helsinki 16.3.1973
No 1635
Viite: aloite
Asia: tavoitetutkimuksen suorittaminen

R y h m ä k i r j e ohjeiseen tutkimukseen osallistuville opettajille

Kouluhallitus tutustuttuaan assistentti Anna-Liisa Leinon tutkimusesitykseen katsoo, ettei kouluhallituksen taholta ole estettä tutkimuksen suorittamiseen. Kuitenkin kouluhallitus edellyttää, että se suoritetaan tutkimukseen valitun koulun johtajan / rehtorin suostumuksella ja hänen asettamillaan ehdoilla.

Osastopäällikkö

Olli Sampola

Ylitarkastaja

Reijo Ala-Kurikka

Table 1. Means and Standard Deviations of Importance of Objectives of English Teaching

	Elementary level		Intermediate level		Advanced level	
	$\bar{x}$	s	$\bar{x}$	s	$\bar{x}$	s
1.	1.45	0.78	2.35	0.81	3.27	1.03
2.	2.25	0.95	3.00	0.88	3.39	0.94
3.	2.80	1.06	3.10	1.99	3.26	1.19
4.	4.35	1.15	3.27	0.90	4.06	0.81
5.	1.71	0.77	2.97	0.73	3.74	0.71
6.	2.40	1.02	2.95	0.92	3.29	1.10
7.	3.72	0.98	3.28	0.68	3.56	0.89
8.	1.95	.99	2.30	0.81	3.48	0.99
9.	3.35	1.02	2.74	0.89	2.43	1.14
10.	3.05	0.96	3.23	0.82	3.12	0.95
11.	3.63	0.90	3.85	0.85	3.99	1.04
12.	1.99	0.81	3.02	0.74	3.68	0.84
13.	1.73	0.71	3.00	0.78	3.58	0.94
14.	1.96	0.84	2.27	0.78	2.69	0.86
15.	2.80	0.94	2.71	0.84	3.07	0.85
16.	2.25	1.33	1.81	1.06	1.68	1.07
17.	3.51	1.08	3.86	0.82	4.08	0.91
18.	3.02	1.07	3.89	0.97	3.95	1.09
19.	1.28	0.58	2.02	0.86	2.38	0.95
20.	2.68	0.88	2.58	0.82	2.65	0.89
21.	3.59	1.08	3.83	0.91	3.96	0.95
22.	4.20	0.96	4.62	0.77	4.62	0.81
23.	3.30	0.87	3.01	0.63	3.50	0.78
24.	3.45	0.98	3.48	0.72	3.99	0.85
25.	3.68	0.97	3.92	0.77	4.04	0.92
26.	3.81	0.83	3.51	0.94	4.28	0.99
27.	1.52	0.80	2.67	0.89	3.25	0.99
28.	1.15	0.52	1.86	0.71	2.44	0.87
29.	2.35	0.97	2.81	0.71	3.12	1.09
30.	2.86	0.98	3.58	0.83	3.78	0.95
31.	3.00	0.99	3.81	0.99	3.84	1.12
32.	1.93	0.81	2.67	0.80	3.60	0.85
33.	3.04	0.93	3.22	0.95	3.87	0.81
34.	3.99	1.03	4.11	0.94	4.23	0.85
35.	3.63	1.15	3.59	0.89	4.24	0.87
36.	3.37	1.04	3.91	0.88	3.65	0.96
37.	3.00	1.03	3.36	0.85	3.76	0.88
38.	3.33	1.08	3.21	0.90	3.54	0.99
39.	3.33	1.14	2.94	1.00	3.63	1.05
40.	1.97	0.78	2.51	0.75	3.51	0.93
41.	3.99	0.91	4.01	0.95	3.73	1.09
42.	2.40	0.72	2.91	0.71	2.67	0.88
43.	3.45	0.93	3.66	0.73	3.52	0.83
44.	3.45	0.91	3.42	0.78	3.80	0.83
45.	3.35	0.90	3.14	0.70	3.44	0.95

Table . Intercorrelations of Importance of Objectives at Elementary Level (N=100)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.																	
2.	12																
3.	-09	20															
4.																	
5.			-0	--													
6.	-0																
7.			-0		36	-04											
8.			-0	--	--	00	28										
9.	-1	-0	0		-01	00	-12	-22									
10.	-1				-0	60	-14	-05	08								
11.	-1	-1			-0	00	14	-25	20	15							
12.			-1	11		-18	31	34	-10	-24	-07						
13.			-0	-3	58	-04	27	44	-12	-10	-06	64					
14.			-		17	-08	2	34	-13	-1	-10	26	38				
15.	-1		-0	18	20	-03	11	01	02	-16	-06	04	12	18			
16.				-1	1	-0	19	11	19	03	-18	21	28	14	-14		
17.	-1	-1	-1			-12	14	-23	32	-03	37	03	00	-0		-19	
18.	-2	-1	01	3	-10	-02	15	-38	15	07	78	-0	-14	-0	11	-	48
19.		-0	-1	-1		-08	05	56	06	-12	-30	32	35	31	-03	12	-19
20.					-2	24	-15	04	12	23	-03	-04	-04	00	14	-15	13
21.	-2				-03	-03	15	-30	14	09	47	05	00	-08	08	-09	39
22.	-1	17	-01	21	-31	09	-27	-30	-03	11	08	-14	-27	-04	03	-03	12
23.		-01	-2	-1	42	00	32	35	00	-06	-14	52	42	12	07	00	09
24.		11	-0	07	12	20	16	10	-12	07	-04	14	21	13	21		22
25.	-1	-2	-0		-1	-06	03	-23	04	-04	45	-05	-04	31	24	-0	37
26.	-		1	11	20	-33	04	-19	24	-03	19	24	-17	-15	-0	06	-0	09
27.			-1	00	26	-17	28	39	-08	-27	-26	41	28	43	21	33	-10
28.			-1	-1	3	-03	08	61	-20	-13	-35	37	53	46	13	32	-24
29.	14	08	-1	03	20	-09	29	35	07	-14	-20	29	22	27	11	41	00
30.	12	-0	-0	-0	17	-06	28	07	-04	05	21	15	05	05	2	10	09
31.	-1	-1	1	2	-24	15	-02	-21	10	33	48	-21	-0	-0	-03	06	25
32.			-0	0	38	15	18	44	-04	09	-13	26	27	29	07	12	-00
33.		17	-1	07	15	03	-04	05	18	00	-05	06	13	13	20	0	0
34.	-1		0	29	-25	02	-13	-25	12	01	12	-14	-22	0	17	-20	14
35.	-1	13	0	25	-14	21	-09	-11	-02	14	01	-05	-0	04	38	-29	14
36.		10	-1	11	-1	-09	20	-05	-05	-03	-03	20	02	02	15	10	-04
37.			-1	11	00	-12	20	-03	08	01	21	18	19	12	-0	19	23
38.	-1	2			-08	26	-13	-02	0	22	-02	-07	-15	-0	24	-2	0
39.					-1	32	-07	-08	-07	34	08	-0	00	07	0	0	18
40.		12	-1		2	03	09	52	12	00	-14	3	34	38	00	2	-
41.		-0			01	-08	15	-13	11	00	29	08	15	03	-0		
42.			-1	1	3	0	31	29	10	06	-04	25	34		10	2	
43.			-0	-0	41	-12	18	42	00	-18	-24	39	42	0	0	1	-
44.			-		28	01	10	-0	07	-03	00	19	32	29	13		
45.		24	-1	1	32	30	13	05	0	20	-03	15	30	20	10		

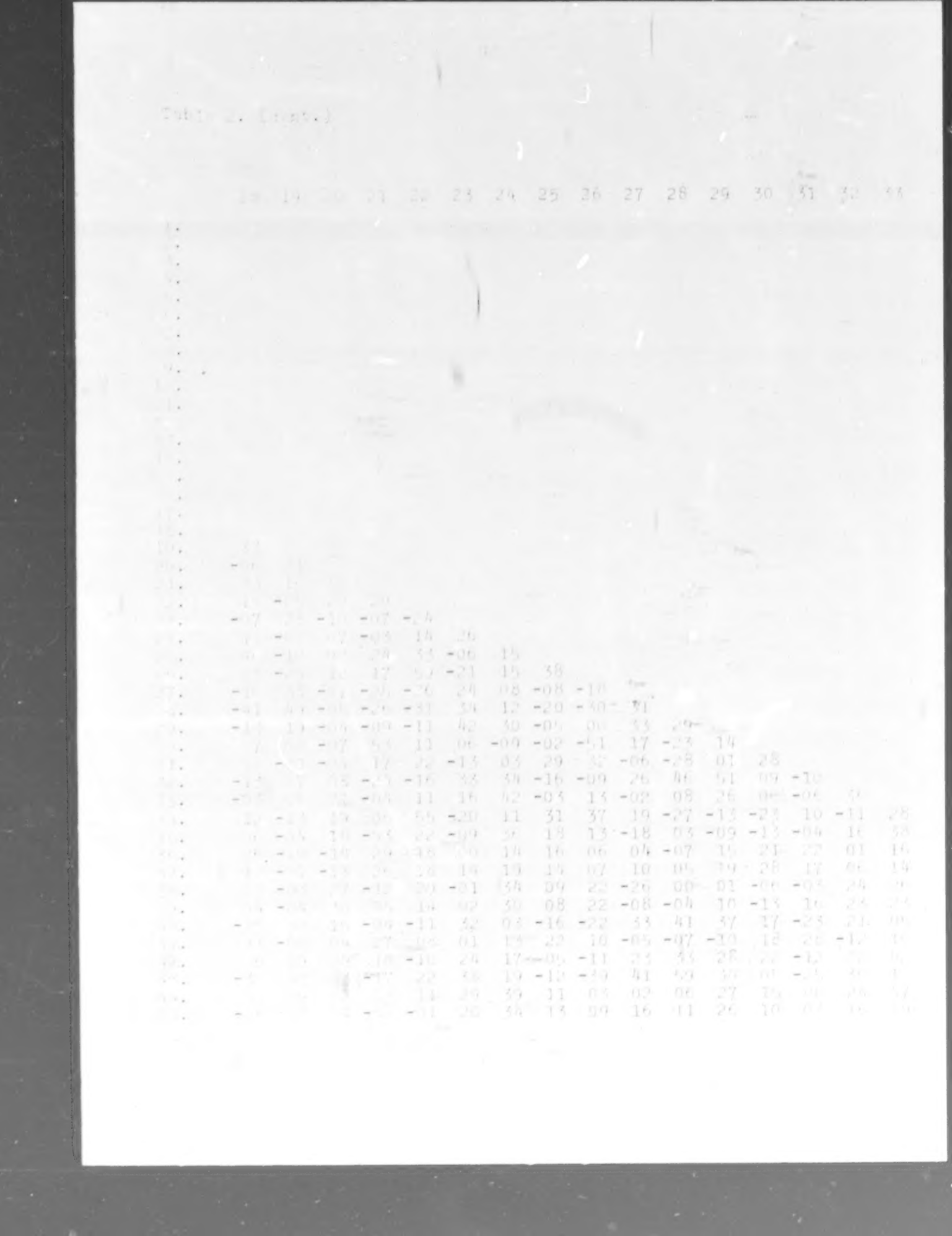

Table 2. (cont.)

	34	35	36	37	38	39	40	41	42	43	44	45
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35.	31											
36.	18	03										
37.	05	-14	59									
38.	29	52	00	-08								
39.	17	25	11	05	25							
40.	-16	-05	09	09	01	03						
41.	08	05	41	18	-08	12	01					
42.	-03	06	-01	13	04	07	51	09				
43.	-09	17	-05	06	05	00	48	-06	42			
44.	20	27	23	37	21	10	08	16	29	14		
45.	02	03	14	32	05	21	21	24	43	09	40	

Table 3. Intercorrelations of Importance of Objectives on Intermediate Level (N=100)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.																	
2.	23																
3.	06	42															
4.	-02	21	11														
5.	26	27	16	11													
6.	17	26	72	08	16												
7.	22	07	-01	15	22	14											
8.	44	00	-06	00	34	18	12										
9.	-02	05	32	-07	10	30	07	-07									
10.	00	25	61	02	01	65	02	-07	31								
11.	-09	03	16	25	13	19	22	-10	30	28							
12.	19	16	06	-05	49	18	27	33	05	08	08						
13.	05	02	06	-10	43	11	00	27	04	06	06	40					
14.	17	06	-08	17	12	00	24	35	-06	-04	-03	17	22				
15.	02	03	-03	20	04	-03	14	11	-13	-07	-05	-12	-03	12			
16.	10	-14	-06	-13	05	-07	23	20	22	-07	-16	25	12	37	-03		
17.	06	09	19	35	15	18	04	-09	02	18	37	04	16	04	25	-33	
18.	-07	-06	18	23	-06	13	20	-19	12	21	71	00	-05	07	04	-09	40
19.	19	-01	-06	-08	24	-01	04	35	07	-15	-15	24	15	44	08	30	-11
20.	15	28	43	-02	05	42	-15	00	-14	40	15	-02	02	02	14	00	18
21.	-01	13	16	20	09	20	20	-02	12	16	45	05	13	07	15	-17	39
22.	-04	12	13	14	-22	23	-05	-11	-04	20	24	-06	-27	09	03	-24	21
23.	19	-02	-08	-02	42	04	23	31	-05	-06	10	35	33	14	-11	17	08
24.	-05	-06	00	09	05	08	12	03	-07	02	11	02	00	16	30	03	15
25.	07	-05	12	54	-07	13	11	-03	10	07	45	-02	-07	14	24	07	36
26.	01	09	27	14	-06	25	00	-15	07	24	17	05	-06	-12	17	-02	03
27.	15	03	18	16	03	03	08	08	08	04	18	18	09	21	-04	06	16
28.	21	08	-10	-09	23	-09	16	44	-17	-03	-15	30	25	33	14	26	-10
29.	01	-11	-08	-12	00	-12	22	19	-06	01	-03	26	28	28	06	36	02
30.	21	00	11	04	19	10	39	07	07	08	28	18	00	04	06	14	22
31.	-06	-08	21	21	-12	27	20	-16	12	35	63	00	-14	05	11	-09	38
32.	09	14	08	01	16	11	08	22	-06	07	07	23	26	24	20	18	08
33.	11	14	00	00	-04	10	-05	19	02	00	08	16	07	07	25	02	11
34.	-05	03	02	18	-26	06	-03	-07	-09	00	19	-06	-21	06	18	-22	15
35.	-01	14	00	17	07	05	-18	05	-25	05	12	-02	-13	-07	30	-25	17
36.	02	-04	-04	16	02	00	25	-10	-16	02	25	08	-02	08	12	-08	07
37.	08	-07	-02	22	-08	01	15	10	-12	07	19	10	08	20	16	03	28
38.	02	12	28	17	01	31	-01	-02	07	33	19	-10	-01	-07	21	-10	14
39.	14	12	20	-05	-06	31	04	-05	-03	38	18	15	19	04	-13	-02	10
40.	44	03	02	06	25	09	11	45	-03	03	07	13	16	23	05	-06	12
41.	-02	-04	06	11	09	09	22	-23	-03	09	34	22	09	-10	-13	-04	14
42.	20	07	-05	11	13	01	19	31	-04	08	03	15	24	64	12	19	03
43.	18	03	-06	06	29	06	12	44	-08	-06	01	22	18	24	34	19	09
44.	72	-16	-12	04	-05	01	01	19	-17	-06	07	08	19	15	28	-08	13
45.	-02	-12	06	-03	11	18	08	09	03	17	03	01	30	08	07	-02	12

Table 3. (cont.)

	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
1.																
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15.																
16.																
17.																
18.																
19.	-14															
20.	20	16														
21.	35	-06	18													
22.	35	-17	13	38												
23.	04	32	00	-10	-27											
24.	12	-03	05	21	15	01										
25.	48	-11	13	35	33	-04	19									
26.	33	-21	24	22	45	-14	17	39								
27.	31	13	18	15	16	10	04	31	17							
28.	-11	45	10	-08	-15	37	06	-12	-22	15						
29.	16	11	05	03	13	26	12	-02	04	29	33					
30.	41	03	06	26	07	17	00	13	13	22	05	28				
31.	71	-07	22	31	34	-08	16	46	21	33	-02	01	43			
32.	13	18	32	-03	01	25	19	01	04	09	31	35	05	09		
33.	04	07	14	12	25	-02	37	22	19	-01	04	10	-10	04	46	
34.	30	-22	10	27	62	-30	19	39	43	05	-22	03	07	21	02	29
35.	13	-05	14	02	29	-05	30	29	20	-08	-03	-06	-13	16	18	55
36.	28	-07	-11	32	25	08	22	10	06	07	05	22	44	29	10	10
37.	23	15	-02	42	35	-03	17	22	08	20	14	37	40	31	16	18
38.	17	-06	44	05	32	07	16	27	36	05	10	06	00	15	32	20
39.	23	-17	49	08	15	10	09	08	33	16	-04	32	13	14	18	16
40.	-09	19	07	05	03	18	05	07	-19	24	27	26	10	00	12	00
41.	31	-15	-06	32	20	-08	19	25	16	14	-05	17	40	35	-09	05
42.	-03	32	14	06	00	11	12	05	-07	13	38	24	07	07	14	-07
43.	-09	21	10	03	-05	25	21	05	-08	08	31	34	08	01	46	19
44.	05	05	-11	05	29	10	36	18	07	05	14	29	15	08	20	42
45.	05	10	12	01	14	18	29	07	18	-08	09	03	17	03	01	30

Table 3. (cont.)

	34	35	36	37	38	39	40	41	42	43	44	45
1.												
2.												
3.												
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31.												
32.												
33.												
34.												
35.	36											
36.	21	13										
37.	26	03	57									
38.	19	34	05	02								
39.	17	15	14	05	29							
40.	02	00	05	21	03	11						
41.	16	02	44	26	-06	28	02					
42.	04	-13	04	13	07	19	44	03				
43.	04	19	10	17	10	07	38	-03	38			
44.	31	31	19	32	09	09	23	18	12	28		
45.	08	07	01	13	19	18	27	32	16	14	37	

Table 4. Intercorrelations of Importance of Objectives at Advanced Level (N=100)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1																	
2	23																
3	16	54															
4	-10	17	15														
5	40	14	12	15													
6	32	43	76	08	20												
7	33	07	02	08	11	18											
8	54	03	09	-01	50	21	22										
9	21	-10	23	04	05	28	40	12									
10	13	41	59	11	05	51	18	07	25								
11	14	14	16	30	08	11	50	14	32	25							
12	20	08	10	07	39	15	28	30	18	09	27						
13	13	03	04	20	24	05	21	19	24	11	50	43					
14	14	06	02	-04	18	05	25	35	11	05	06	15	18				
15	04	-04	-10	01	07	03	21	07	-15	-04	05	09	-01	21			
16	-01	-14	-14	-05	-02	-13	16	16	29	-08	-03	07	08	35	04		
17	35	28	19	32	32	21	30	23	15	24	48	25	26	02	22	-07	
18	08	18	17	29	02	09	52	07	25	26	79	17	41	15	09	06	53
19	13	-16	04	00	11	15	15	09	25	-06	06	15	10	42	13	27	10
20	10	27	47	05	03	41	19	-01	29	51	26	05	18	10	07	02	26
21	20	18	23	29	24	31	41	25	22	26	50	17	41	08	18	-12	50
22	11	20	26	28	-02	26	30	04	04	31	44	06	15	-05	01	-11	36
23	36	-01	14	17	42	17	30	36	31	12	34	51	40	12	-04	19	36
24	19	-07	08	07	17	13	25	14	16	14	30	23	24	13	29	-07	29
25	08	03	17	42	11	11	42	12	21	23	54	16	30	00	16	09	44
26	05	08	29	12	13	28	21	03	16	28	23	14	19	-13	14	-03	10
27	13	04	20	14	24	11	25	26	25	15	44	32	33	17	-05	17	29
28	27	-04	03	02	27	07	24	34	09	07	11	35	26	47	13	09	07
29	28	04	-04	04	07	05	44	30	27	01	31	40	19	20	01	30	32
30	14	01	14	11	15	23	50	05	28	22	33	26	27	12	23	02	45
31	06	13	21	21	06	19	44	08	22	33	70	18	33	14	15	02	44
32	23	13	17	02	36	24	31	29	10	15	20	28	25	10	28	-06	25
33	24	19	21	06	12	30	13	25	02	19	21	23	14	-07	24	-12	22
34	-01	19	21	14	07	14	22	-04	-02	14	28	11	11	-04	21	-13	33
35	74	09	-01	-01	10	01	07	11	-22	14	14	03	-01	02	19	-04	25
36	-01	03	02	21	-08	07	37	-06	07	10	31	14	15	07	16	02	23
37	06	-09	02	17	08	11	29	08	06	08	30	13	16	13	21	-04	33
38	08	31	41	18	04	42	33	08	20	39	21	00	13	13	20	08	25
39	26	24	19	-08	03	31	22	08	07	35	10	17	21	08	-13	-01	10
40	55	01	04	01	29	17	33	57	11	07	25	25	23	20	13	-04	33
41	24	01	12	24	12	21	43	11	20	18	35	36	39	-05	-02	03	32
42	21	00	07	20	12	14	34	25	26	18	21	08	33	52	14	25	10
43	20	08	12	-07	23	16	24	39	00	16	17	30	04	24	42	13	23
44	16	07	03	16	04	12	27	25	06	15	23	11	17	25	39	03	27
45	11	01	16	15	20	25	33	26	28	19	40	28	48	20	11	05	30

Table 4. (cont.)

	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
1																
2																
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17																
18																
19	02															
20	34	15														
21	53	-03	30													
22	48	-10	18	51												
23	31	26	17	31	21											
24	26	09	21	30	17	25										
25	62	01	18	46	48	29	25									
26	30	-17	19	32	48	26	22	41								
27	44	18	17	33	23	44	28	44	23							
28	06	48	10	07	-13	37	21	05	-14	33						
29	37	22	04	30	29	46	14	28	15	38	26					
30	55	06	21	54	28	24	36	43	35	35	10	44				
31	74	04	36	48	42	14	34	60	21	52	11	26	48			
32	21	02	31	30	10	29	37	12	25	22	36	26	32	19		
33	12	-03	12	36	34	12	42	24	30	09	07	17	14	21	46	
34	42	-17	11	34	55	13	16	44	59	18	-13	18	45	29	25	35
35	17	00	07	21	43	02	21	23	26	00	05	17	19	19	31	49
36	45	05	09	43	37	18	26	30	20	16	13	43	53	35	31	20
37	27	14	04	52	35	18	35	26	21	23	20	34	50	31	33	23
38	33	03	43	24	35	05	33	32	32	21	17	20	35	29	43	24
39	20	-03	43	29	21	26	14	11	36	25	14	20	23	15	16	12
40	10	21	01	22	07	41	33	14	02	26	45	37	19	08	32	17
41	42	-02	08	52	32	38	25	47	33	26	13	45	56	38	21	21
42	18	39	16	24	08	23	21	13	13	31	51	22	26	22	19	-08
43	07	27	18	22	11	25	28	11	10	32	43	35	19	24	53	37
44	24	21	05	31	20	05	57	14	11	24	27	32	45	31	26	34
45	45	15	28	48	26	48	40	42	27	37	32	40	43	35	33	23

Table 4. (cont.)

	34	35	36	37	38	39	40	41	42	43	44	45
1												
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31												
32												
33												
34												
35	46											
36	29	18										
37	25	30	56									
38	34	20	28	13								
39	20	18	19	09	26							
40	02	10	11	28	22	20						
41	31	21	51	41	17	35	27					
42	01	-05	21	30	30	29	42	12				
43	15	35	15	32	26	11	44	22	20			
44	20	21	32	39	34	04	37	22	31	32		
45	20	01	40	31	29	27	37	46	32	20	33	

Table 5. Correlations between Objectives at Elementary and Intermediate Level (N=100)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
101	59	15	06	-06	25	21	18	33	03	02	-10	19	19	18	03	07	-08
102	07	64	39	12	08	17	11	02	07	24	05	04	01	-04	06	-05	06
103	-04	10	89	-04	-05	49	-04	-09	07	62	14	-22	-09	-23	-21	00	-05
104	00	11	12	76	02	08	09	-12	02	04	30	04	00	19	18	-17	29
105	06	05	10	-18	49	08	18	18	13	01	17	32	26	05	05	08	09
106	-06	04	65	-02	00	86	-05	-01	08	68	09	-14	-01	-12	-14	00	-14
107	16	06	-02	13	23	15	67	15	-08	-02	19	19	10	14	15	17	04
108	28	-08	-11	-15	38	13	12	33	11	-04	-15	34	29	35	03	25	-14
109	-19	-12	27	-08	-07	17	-18	-16	41	28	16	-20	-03	24	09	25	-04
110	-14	10	51	00	00	55	-16	-07	-02	95	15	-15	-07	-16	-17	05	-04
111	-29	-10	10	20	-12	16	-04	-25	17	22	72	-12	-17	-19	-10	-15	24
112	16	10	03	-15	42	10	24	12	12	01	05	46	34	-09	-08	27	09
113	05	-01	12	-16	25	05	10	18	24	09	11	19	39	-05	-11	25	15
114	18	03	07	21	23	-05	31	10	05	-03	03	31	26	63	-05	31	01
115	-03	07	04	19	-04	-02	14	-08	02	01	00	-14	-06	16	68	-12	24
116	07	-01	-02	-06	11	-06	20	12	-04	-04	-16	13	18	20	-09	72	-29
117	-19	-10	-17	25	-08	17	04	-35	22	20	42	-20	-18	-16	03	-31	65
118	-23	-16	15	19	-23	14	-07	-32	00	18	52	-21	-29	-10	-09	-19	21
119	17	-17	-11	-14	24	-23	07	10	09	-14	-17	20	18	31	-09	20	-20
120	-08	17	43	-01	-04	34	-17	-05	-02	41	08	-20	-12	-01	00	-09	-05
121	-20	00	17	08	-10	-06	04	-30	06	14	47	-06	-11	-14	00	-24	23
122	-15	09	08	09	-26	17	-21	-27	-01	17	12	-06	-19	-05	-03	-28	-07
123	-09	-13	-15	-09	30	-03	21	12	00	08	10	32	11	-05	-14	19	02
124	-12	03	05	05	-11	12	10	-14	-10	02	13	-10	-04	07	18	-11	15
125	-10	-06	10	51	-14	11	-02	-33	15	04	40	-10	-09	01	21	-09	28
126	-14	06	26	12	-24	20	-06	-19	-03	26	17	-21	-15	-13	15	-09	00
127	09	-10	11	13	-02	-06	00	-12	02	-01	17	04	06	04	-05	12	12
128	29	-10	-12	-21	19	-12	09	20	-14	-06	-15	29	24	23	-04	26	-15
129	03	01	-11	10	-15	21	-04	02	-06	00	17	03	02	-14	40	04	08
130	09	-02	14	01	04	04	22	-01	-11	09	31	-10	-07	-07	-16	-02	00
131	-14	-11	14	24	-18	28	-07	-24	-01	34	43	-22	-17	-04	-05	-17	09
132	01	07	02	03	11	03	10	10	16	12	09	04	-04	03	-04	11	-06
133	-08	14	-01	01	-05	04	-11	-10	20	01	02	-04	01	-04	16	-05	13
134	-04	09	-04	29	-24	02	-18	-22	-03	-02	18	-15	-26	-04	-08	-33	-06
135	-07	17	-05	16	-13	08	-14	-19	11	-07	06	-08	-13	-03	23	-28	12
136	12	07	02	11	-08	04	09	-02	-18	04	30	-08	-01	05	-05	-18	-06
137	10	-02	01	13	03	-06	10	-11	-03	10	26	11	11	00	-15	04	11
138	-14	04	20	14	-07	24	-08	-10	-06	34	07	-18	-11	-12	11	-19	01
139	10	15	29	07	02	33	01	05	-09	35	07	-06	01	-02	-07	-06	05
140	36	00	03	04	35	06	06	32	24	01	02	24	18	14	-05	12	12
141	-01	03	19	09	00	16	03	-18	-06	05	34	01	08	-19	-08	-09	13
142	23	00	00	13	28	03	31	18	00	09	02	23	23	47	-03	13	-01
143	04	03	-07	02	28	00	25	13	16	00	06	15	07	17	10	12	09
144	16	-01	-03	05	00	-04	00	06	-04	-07	08	06	17	08	03	-06	13
145	05	-09	14	-04	02	11	-16	-09	05	13	16	02	08	-07	-08	07	09

Table 5. (cont.)

	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
101	17	34	23	00	-11	19	-07	-09	-10	34	21	06	29	-07	15	15
102	-04	-06	33	23	06	-09	-10	-08	06	-01	-02	-05	01	-06	13	04
103	07	-08	29	09	-03	-18	-12	-12	16	-24	-17	-16	-02	13	-01	-17
104	40	06	12	17	14	-13	60	43	20	08	-12	-05	02	16	06	05
105	05	14	04	20	-30	21	-08	-08	-13	07	15	11	17	-09	05	00
106	01	-03	30	07	08	-01	04	-10	14	-26	-10	-09	-06	15	14	-01
107	23	-05	-04	15	-09	21	02	04	-15	20	04	18	36	16	10	-02
108	-22	29	02	-02	-12	37	06	-06	-14	26	27	24	-01	-20	21	14
109	-04	-14	08	09	-13	-21	-16	-10	-03	-18	-10	-15	-06	00	-05	-05
110	-07	-14	24	09	10	-07	-08	-05	16	-25	-13	-14	07	31	00	03
111	57	-30	09	33	17	-20	-09	25	16	-30	-39	-22	11	48	-13	-06
112	-04	13	02	01	-17	36	14	-17	-11	11	16	21	15	03	20	12
113	03	11	-07	-22	27	14	-04	-08	-02	21	23	08	00	16	03	-23
114	06	21	-03	06	12	11	14	15	05	34	19	28	07	06	26	15
115	14	00	14	09	18	-06	16	27	17	01	02	17	11	11	09	19
116	24	14	-12	-15	-20	12	01	-12	-07	29	28	30	20	-05	23	05
117	51	-15	22	31	19	-14	04	34	10	-27	-37	-11	13	33	-13	10
118	64	-28	07	14	28	-21	00	21	27	-16	-38	-15	23	55	-11	-04
119	-20	55	08	-12	-17	05	-24	-11	-10	18	19	10	03	-20	11	07
120	-08	10	73	07	12	-22	03	-06	17	-20	-09	-14	-12	05	06	-01
121	33	-19	18	78	29	-24	-04	17	23	-31	30	-18	02	27	-28	-04
122	18	-19	21	24	83	-26	12	12	54	-20	-34	-15	-01	24	-09	15
123	07	24	-10	02	-26	46	-03	-09	-12	12	09	14	11	-08	17	-08
124	14	-20	11	06	21	-13	55	26	29	-06	-12	09	-03	12	06	32
125	38	-08	17	24	33	-20	10	62	39	-05	-29	-09	08	40	-15	03
126	13	-20	11	12	36	-16	23	12	77	-09	-28	01	-03	32	-07	13
127	18	01	03	03	07	-15	-14	06	13	32	-18	-12	08	27	-18	-19
128	-19	28	-01	-13	-11	28	03	-07	-15	22	46	11	01	-09	16	-02
129	-07	-03	-03	11	16	20	-05	03	18	-04	-04	45	06	16	12	-06
130	27	-08	-02	13	05	-10	-14	02	08	-06	-13	-09	65	39	-08	-13
131	50	-20	13	08	30	-35	-07	18	19	-13	-29	-24	23	76	-12	-18
132	10	03	28	-12	-00	16	19	-16	04	07	01	29	11	10	51	28
133	-05	-00	34	03	21	-04	26	-03	21	-04	-06	13	-07	-04	24	72
134	18	-21	21	06	63	-31	08	32	48	-22	-33	-16	-12	12	-09	17
135	10	-01	25	-06	28	-17	21	18	20	-04	-15	-08	-06	08	-05	41
136	27	-12	-12	17	27	-12	07	11	11	-04	-11	02	19	25	-03	05
137	25	01	05	31	38	-06	09	19	27	-03	-19	09	24	30	-11	15
138	02	-06	25	-03	26	01	25	03	28	-18	-13	-12	-11	02	16	13
139	02	-04	32	03	08	02	27	-04	14	-02	-09	12	-09	15	21	17
140	-08	22	15	05	06	17	06	04	-11	27	12	28	08	-05	12	-01
141	30	-22	01	18	15	-15	07	19	10	-16	-19	-20	22	31	-18	03
142	-09	24	-02	05	00	11	16	01	-06	24	23	22	00	-03	17	04
143	01	21	09	04	-03	24	12	03	-09	15	04	32	08	03	25	11
144	08	00	00	07	26	08	31	18	18	-04	-07	15	11	15	14	38
145	12	-07	02	-04	19	01	22	30	16	-07	-08	-03	-08	-02	-01	17

Table 5. (cont.)

	34	35	36	37	38	39	40	41	42	43	44	45
101	-04	04	07	10	-03	10	40	07	24	23	09	16
102	06	08	05	00	59	10	15	05	18	-01	01	10
103	00	04	-12	-16	12	-16	-04	04	-03	-30	-08	11
104	20	19	13	12	18	03	13	15	13	03	13	09
105	-24	-11	-03	-11	-12	-12	25	20	21	20	01	11
106	05	15	-13	-14	22	30	02	03	03	21	-01	23
107	02	-11	25	05	-04	00	09	14	13	05	01	01
108	-03	02	-09	07	-08	-01	38	-17	31	34	17	17
109	-05	-13	-10	-04	02	-02	-04	-12	-11	-19	-21	-05
110	01	15	-04	-04	22	38	01	11	08	-19	-02	20
111	14	03	20	07	13	17	-10	15	-08	-24	-06	-15
112	-05	-04	-06	09	-11	10	12	16	15	24	09	16
113	-20	-04	10	-12	15	11	09	24	08	10	30	05
114	10	-08	10	20	-11	08	16	05	40	15	11	19
115	18	25	15	04	23	-05	-08	09	18	06	16	27
116	-16	-22	-10	11	-21	-04	06	-15	03	18	-04	04
117	07	03	07	16	00	10	-12	20	07	-26	08	13
118	20	05	15	04	09	20	-24	-14	-16	-32	-09	-10
119	-12	-11	-17	-11	-18	-06	10	-16	17	20	-11	-11
120	03	09	-19	-12	24	45	-05	-12	-01	-04	-13	05
121	17	04	23	11	-09	06	-11	22	-02	-28	-11	-13
122	51	20	19	17	35	15	-12	14	-04	-26	14	04
123	-29	-15	-04	13	-09	09	08	-08	12	09	08	02
124	22	27	19	08	20	14	-20	17	-01	-09	20	12
125	34	25	17	14	27	15	-08	20	09	-12	21	14
126	34	18	03	-02	27	32	-21	06	-13	-26	05	14
127	-03	-20	11	15	-20	14	08	11	-05	-13	-08	10
128	-22	-06	-10	10	-08	02	15	-03	10	37	06	10
129	-14	18	32	-06	27	09	01	05	05	18	20	20
130	-10	-26	27	26	-13	08	-06	18	-04	-16	-10	-07
131	13	07	14	04	06	14	-16	08	30	-35	-07	18
132	01	07	08	14	17	16	-02	10	-02	03	16	06
133	33	39	23	12	24	21	-05	11	-04	-06	38	05
134	82	24	11	-02	32	21	-15	03	-09	-25	07	-03
135	37	71	12	-00	41	18	-10	06	-07	05	32	-09
136	16	05	80	36	00	12	04	36	-20	-15	00	-01
137	25	-12	49	65	-14	06	07	28	-01	-11	19	19
138	11	29	02	02	72	30	-07	11	-12	-07	16	02
139	09	17	05	01	18	93	02	10	02	00	03	17
140	-01	-05	06	14	07	09	63	-05	35	33	10	11
141	04	01	22	04	-05	23	-08	70	-09	-15	00	13
142	04	-10	05	13	03	19	35	00	60	26	05	31
143	06	07	10	14	03	06	20	-03	21	34	34	22
144	27	17	19	27	16	11	-04	12	09	-02	58	24
145	06	03	-04	00	13	22	01	25	00	-12	08	45

Table 6. Correlations between Importance of Objectives at Elementary and Advanced Level (N=100)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
201	27	-02	12	-13	11	27	16	12	21	16	09	04	08	-06	-07	08	15
202	08	33	45	05	06	28	07	01	00	39	19	-07	-04	-14	-13	-08	07
203	-11	08	75	-01	-05	38	-03	-07	07	61	22	-18	-09	-20	-22	-04	-04
204	-04	05	17	48	-13	15	02	-19	02	07	28	03	-01	08	07	-16	20
205	-04	-06	-07	03	16	12	10	-12	20	08	33	17	-01	-03	-01	08	26
206	00	01	60	-02	04	54	03	04	07	59	16	-13	-04	-20	-19	00	-12
207	00	-06	03	09	05	29	14	-01	-11	10	11	-08	-09	05	11	-06	01
208	07	-13	02	-10	09	23	07	-10	30	12	09	07	-03	08	13	20	10
209	-11	-10	18	-13	-06	15	-07	-09	13	19	10	-16	-05	-15	-11	20	-20
210	-13	10	55	-02	-08	53	-18	-06	-01	90	08	-22	-09	-15	-15	-02	-06
211	-22	-12	10	-01	-12	25	-11	-10	02	17	36	-13	-13	-09	-11	-21	-06
212	-13	10	12	-14	14	13	02	-20	04	-01	12	02	01	-28	-15	08	03
213	-11	-06	08	-12	04	09	-03	02	-03	03	11	-03	02	-06	-14	-09	-06
214	09	-07	01	-01	21	-01	19	01	03	04	-10	14	06	34	-13	31	-21
215	-05	06	-04	11	-11	-08	17	01	-04	-01	08	-22	-15	12	37	-08	06
216	09	-05	-11	01	13	-12	20	09	-13	-16	-16	15	14	21	04	48	-29
217	-12	-09	13	06	-02	15	04	-28	-05	19	34	-25	-20	-16	-05	32	32
218	-19	-15	14	03	-15	20	-05	-22	-16	16	33	-18	-26	-07	-06	-28	-01
219	11	-21	-06	-08	13	-07	11	06	12	-01	-06	11	09	21	-12	28	-32
220	-16	06	43	-09	-11	38	-14	-04	-01	48	12	-26	-15	-01	-08	-07	-09
221	-13	00	24	07	-09	23	06	-23	03	19	43	-08	-15	-16	-03	-33	15
222	-09	-08	13	04	-21	21	-15	-28	-02	20	14	-07	-19	-07	-06	-34	09
223	-11	-07	10	-06	-01	05	03	-14	04	03	25	-01	-18	-14	-21	-02	01
224	-10	-04	13	-05	-19	14	-04	-07	-16	10	18	-24	-04	-06	13	-01	02
225	-17	-08	20	28	-18	17	-10	-36	-01	10	26	-19	-19	-09	18	-23	12
226	-09	05	27	15	-22	-15	-06	-19	01	19	15	-22	-21	-17	12	-16	-03
227	04	-22	14	13	-04	13	08	-10	-01	09	25	-04	-11	-12	-25	11	-02
228	15	-07	04	-14	12	05	08	06	-03	06	00	21	16	09	-19	25	-09
229	11	-01	-03	-09	-01	-03	19	-12	-09	-10	12	00	-08	-09	-14	03	-09
230	-09	-11	20	05	-17	14	04	-20	-20	15	26	-35	-25	-23	-04	-18	-06
231	-10	-12	16	13	-16	32	-08	-14	-14	30	29	-21	-13	-01	-05	-19	-03
232	-12	11	16	-02	-13	18	-05	-09	10	17	19	-23	-22	-11	-08	-08	-01
233	-10	20	19	-02	-17	22	-21	-15	17	14	09	-25	-11	-20	09	-10	03
234	-16	06	11	25	-27	03	-17	-33	-01	08	28	-36	-37	-09	03	-34	08
235	-07	09	-05	08	-20	06	-15	-27	13	08	07	-20	-25	-06	03	-13	10
236	15	03	09	05	-06	08	01	-02	-28	04	29	-11	-08	-03	01	-30	-16
237	14	-04	08	04	-03	01	00	-09	-10	09	21	-02	02	-04	-07	-09	-02
238	-16	04	30	20	-16	22	-15	-17	-06	39	12	-31	-22	-13	-02	-06	-06
239	12	14	29	06	09	31	05	01	-07	31	06	-06	-05	-09	-11	03	-02
240	21	-03	09	00	12	13	03	08	17	05	07	-06	-06	-08	-13	05	13
241	00	02	24	08	-03	20	01	-18	02	12	33	-10	-04	-22	-06	-14	09
242	13	-10	12	11	04	15	23	07	-11	17	-03	02	09	30	-11	19	-14
243	03	14	08	02	04	09	05	-02	25	16	11	-07	-07	-07	-07	24	00
244	10	-14	06	07	-08	09	00	02	-11	11	13	-14	06	03	02	00	-02
245	-05	-19	25	-18	01	17	-03	-08	-15	11	13	-11	-14	-10	-06	-11	-12

Table 6. (cont.)

	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
201	00	14	23	18	-10	14	-08	-04	-07	07	03	04	27	06	06	09
202	07	-15	17	14	03	-04	-08	-09	-04	-11	-09	-19	-05	02	07	-09
203	11	-06	31	12	01	-14	-13	-09	20	-24	-17	-17	00	18	03	-15
204	39	-14	04	17	19	-15	-01	29	20	-07	-12	-13	01	08	-13	01
205	26	03	07	28	-08	09	06	18	15	-05	-05	13	27	13	-01	-04
206	01	03	30	12	08	00	-06	-09	17	-26	-14	-07	-03	17	10	-04
207	12	05	14	10	17	02	11	00	07	01	-01	06	21	20	11	06
208	06	07	21	19	-01	19	01	03	-01	-02	-03	18	18	08	03	15
209	-09	03	06	12	-14	-23	-10	-21	-03	-14	-05	-16	-03	03	-08	-11
210	00	-13	23	09	11	-16	-08	-12	17	-25	-12	-18	06	25	01	-03
211	31	-14	10	16	27	-22	03	04	17	-24	-21	-14	03	30	-03	-07
212	06	-08	01	05	-06	05	03	-10	03	-19	-09	-05	03	11	-03	02
213	05	-04	-01	11	-02	-17	01	-11	05	-18	01	-06	-06	05	00	-12
214	-03	19	-05	08	-03	-08	-08	-07	-07	20	09	14	10	03	12	-08
215	08	06	06	01	10	-09	03	21	16	-02	00	10	11	24	10	12
216	-22	16	-09	-13	-18	04	-04	-15	-17	28	28	19	13	-17	22	04
217	34	-06	19	23	19	-13	-05	18	05	-33	-31	-17	17	24	-12	-06
218	39	-20	09	07	29	-24	-01	07	18	-17	-32	-21	16	34	-13	-13
219	-09	50	04	-17	-23	08	-12	-05	-12	14	15	14	09	-06	11	02
220	-04	04	60	-02	07	-24	-04	-18	11	-23	-08	-13	-06	17	05	-08
221	34	-20	29	54	35	-29	03	09	24	-31	-33	-19	06	27	-23	01
222	19	-11	22	23	66	-32	07	-06	43	-15	-35	-21	09	23	-12	09
223	09	11	10	18	-02	-13	-08	12	16	-10	-14	-04	09	01	-09	-09
224	12	-30	-06	01	23	-23	26	21	38	-13	-16	03	05	31	-11	07
225	30	-15	15	19	37	-31	-03	31	30	-10	-30	-22	15	30	-22	-13
226	11	-14	15	11	33	-23	19	11	70	-09	-29	00	-02	25	-11	11
227	20	00	01	03	11	-14	02	11	13	06	-27	-08	15	32	-19	-17
228	02	21	01	-05	-01	18	06	06	00	08	17	08	-07	02	09	-10
229	17	01	-02	04	11	-06	03	-08	-08	-03	-12	-02	28	06	00	02
230	24	-25	-02	09	21	-26	-11	11	20	-27	-31	-19	30	38	-23	-16
231	31	-21	11	02	33	-30	-03	05	18	-18	-18	-18	16	58	-11	-14
232	16	-16	27	10	30	-10	-05	00	26	-15	-18	03	00	17	05	07
233	00	-14	30	09	34	-22	10	01	31	-21	-18	-06	-09	10	06	43
234	26	-23	13	05	55	-39	05	32	49	-27	-42	-23	-01	20	-11	07
235	16	-15	18	-02	46	-30	13	12	28	-15	-23	-06	10	20	-02	33
236	27	-11	-06	10	31	-21	-03	05	13	-13	-07	-10	16	22	-07	-08
237	21	-03	05	24	40	-15	-01	10	29	-14	-16	03	16	32	-16	11
238	10	-16	22	03	36	-13	15	08	34	-24	-20	-11	-03	16	10	-01
239	-05	-01	32	06	09	-02	21	-09	12	-01	-13	13	-03	15	13	11
240	-01	07	09	04	04	07	12	07	-01	00	-03	22	10	09	05	08
241	30	-20	11	23	24	-17	-02	18	18	-25	-21	-17	21	32	-19	01
242	-06	12	02	02	01	-04	15	00	09	15	14	19	-09	09	11	-04
243	07	06	19	-07	17	07	02	05	10	-05	05	15	13	29	08	10
244	16	-08	-03	-05	21	-09	20	10	23	-12	-15	05	13	30	-06	20
245	07	-10	05	08	16	-15	07	04	17	-14	-14	-01	-03	-01	-08	-13

Table 6. (cont.)

	34	35	36	37	38	39	40	41	42	43	44	45
201	-07	02	-06	09	07	16	19	12	17	07	14	14
202	03	04	-25	-09	-04	20	-01	-01	01	-05	-06	01
203	00	05	-13	-13	14	17	-07	-02	-06	-35	-06	05
204	10	07	[illegible]	16	10	03	08	24	12	-08	14	18
205	-14	-05	-04	03	-10	02	15	21	24	06	00	23
206	00	01	-05	-12	18	05	-02	02	03	-20	-05	09
207	03	01	03	01	14	19	01	05	-03	01	-01	-09
208	-07	05	-05	05	03	07	23	01	23	04	11	11
209	-14	-05	-15	-06	10	06	-01	-12	-16	-15	-34	-23
210	05	15	05	20	26	36	-02	10	02	-15	03	14
211	14	02	12	00	10	10	-01	04	03	-14	-04	-11
212	-05	03	-01	-09	01	12	-05	07	-05	00	02	09
213	-04	-05	-06	-04	10	15	-07	05	08	-08	-09	05
214	-08	-19	-05	-02	-09	06	-01	-10	20	10	-11	05
215	14	12	25	05	13	-12	-21	-06	02	03	14	05
216	-11	-16	-03	15	-10	-08	02	-12	-02	26	-11	-11
217	10	-10	11	17	06	05	-14	01	-09	-15	03	02
218	20	03	15	-01	17	15	-10	03	-12	-20	-16	-11
219	-18	-01	-08	-07	-04	-01	11	-11	18	17	03	-07
220	-05	02	-17	-15	21	41	-08	-17	-07	-08	-18	-01
221	21	00	25	11	04	16	-09	22	-03	-29	-09	-06
222	43	17	33	12	31	11	-13	19	-04	-20	11	-04
223	-06	-05	06	15	05	22	00	04	09	-09	-11	06
224	06	06	05	08	20	18	-25	01	-20	-21	10	06
225	22	26	09	03	25	09	-09	14	-03	-06	04	03
226	27	21	05	-02	26	27	-19	07	-12	-23	02	09
227	-06	-13	13	18	-05	15	04	04	-04	-28	-10	07
228	-20	-02	04	07	-06	24	09	01	07	08	-02	11
229	-03	00	17	17	05	10	01	06	-02	02	02	-10
230	14	-11	21	07	00	12	-23	11	-25	-31	-15	-12
231	11	09	09	-01	10	13	-07	06	-07	-15	-17	-07
232	13	01	20	22	13	16	-05	06	-22	-18	-03	05
233	33	35	18	09	25	16	-13	04	-19	-16	18	-03
234	71	20	32	03	28	21	-27	06	-17	-29	07	-06
235	55	38	21	11	19	19	-17	23	-11	-09	24	-10
236	14	05	05	16	12	11	-05	27	-27	-08	-15	-13
237	22	-10	09	37	-11	02	01	21	-05	-13	06	04
238	11	11	-01	-01	40	28	-15	-05	-25	-23	02	-06
239	08	14	05	00	12	82	04	13	09	-02	21	-09
240	-02	-01	01	11	07	15	23	04	20	06	10	11
241	12	03	07	-05	01	24	-10	48	-13	-17	-04	06
242	02	-13	16	14	01	27	10	07	26	03	15	18
243	06	01	16	21	03	10	10	04	-01	03	03	10
244	17	06	20	17	16	11	-15	10	-09	-16	23	06
245	06	04	01	-10	13	23	-01	04	02	-11	-19	15

Table 7. Correlations between Importance of Objectives at Intermediate and Advanced Level (N=100)

	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116
201	71	17	17	-07	35	29	31	30	22	14	14	30	15	03	-10	04
202	19	74	51	13	18	37	06	00	16	40	22	19	06	02	-11	-10
203	09	44	93	08	11	67	01	-04	32	61	22	07	03	-04	-06	-06
204	00	16	19	80	07	18	12	-07	01	08	31	-02	00	10	07	-15
205	25	18	13	16	61	19	09	24	08	08	22	34	29	15	09	06
206	18	31	71	01	17	81	17	12	30	57	17	14	08	-01	-04	-01
207	23	-09	-06	-10	09	24	57	13	24	11	36	17	-09	10	14	12
208	47	00	05	-03	29	25	13	61	13	11	17	31	22	28	04	20
209	10	-10	23	-04	05	25	18	-04	76	20	25	-02	-07	-08	-15	24
210	02	24	61	05	01	61	-02	-09	31	90	25	07	08	-10	-01	-05
211	-02	-02	14	14	00	23	13	-03	25	21	77	05	01	02	-02	-12
212	00	08	08	-02	36	16	17	12	18	05	29	58	28	-07	-15	10
213	06	-07	03	02	20	11	-05	06	06	04	30	24	47	02	-12	01
214	18	03	-09	-02	17	05	26	36	10	04	06	26	19	67	14	37
215	07	-01	-11	07	-01	-08	16	09	-11	-09	08	-10	-03	14	71	06
216	07	-16	-15	01	-01	-17	21	12	17	-16	-11	19	-02	32	00	85
217	14	06	18	23	13	20	14	-02	13	18	43	07	01	-02	20	-19
218	00	-09	16	19	-04	18	20	-11	14	19	60	03	-14	03	03	-07
219	17	-11	00	-04	16	09	13	28	15	-02	-01	16	11	36	01	35
220	14	46	-07	00	48	-10	-08	23	46	20	-04	03	03	-08	-06	05
221	09	23	21	09	33	24	04	13	21	51	09	10	03	17	-20	43
222	04	17	20	16	-14	27	01	-16	00	24	27	01	-21	02	-02	-25
223	15	03	11	07	26	11	09	16	23	07	34	21	17	01	-18	09
224	04	-10	06	-04	03	14	15	02	10	11	24	-08	05	04	24	01
225	06	-08	20	37	-10	18	11	-10	11	14	39	-03	-18	01	21	-04
226	03	10	26	16	-07	20	-04	-16	07	17	16	16	-05	-10	-15	17
227	16	-12	16	09	-02	16	15	04	17	13	38	16	08	19	-18	17
228	24	-07	01	-07	24	10	13	43	-02	08	10	35	39	33	01	18
229	18	-02	-07	-04	-03	-04	31	10	14	-06	20	21	-07	03	-03	20
230	00	-11	15	07	00	23	33	-13	12	15	31	09	-07	-15	20	01
231	-05	-10	18	15	-14	26	17	-09	12	31	56	29	-15	06	07	-04
232	16	18	14	00	22	23	09	16	07	11	21	06	18	06	22	-06
233	15	27	19	-01	-01	31	-04	14	15	14	18	07	02	-07	20	-12
234	-06	10	14	19	-17	10	-04	-13	-01	08	27	-01	-26	-03	19	-17
235	-02	11	-02	01	-12	03	-13	-03	-17	08	10	02	-15	02	21	-07
236	03	-04	02	10	01	07	28	-11	-08	05	28	04	-11	-01	12	-12
237	08	-08	03	08	-08	07	15	11	-08	06	18	04	-02	15	20	-04
238	03	15	33	16	-07	33	04	-05	14	37	20	-10	-05	02	20	08
239	18	11	21	-09	-04	30	09	-07	-05	35	14	18	14	04	-14	-02
240	40	-01	02	-01	20	12	15	30	09	08	20	16	22	13	05	07
241	05	-09	12	11	05	19	27	-14	05	12	36	08	-15	-03	01	15
242	18	-05	07	09	06	17	26	17	10	19	11	21	18	47	03	27
243	16	08	08	-03	08	13	11	27	11	14	24	22	16	16	23	22
244	13	-14	-03	11	-04	15	12	21	05	10	20	05	08	11	31	04
245	03	-12	17	-06	05	28	06	12	15	17	22	03	10	03	14	-04

Table 7. (cont.)

	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132
201	30	05	08	15	12	03	29	-01	07	04	10	17	07	24	05	07
202	20	17	-11	32	15	11	-04	-13	00	08	10	-04	-13	02	08	11
203	15	23	01	44	19	20	-01	03	12	30	18	-06	-09	11	26	14
204	33	30	-10	-05	25	25	04	12	48	12	14	-03	-10	05	24	-02
205	09	06	39	13	09	11	26	-05	37	17	14	11	12	14	10	23
206	15	11	10	38	29	22	06	03	07	29	-05	-05	-07	12	20	18
207	04	43	06	15	26	21	10	13	29	20	09	13	17	35	37	16
208	23	10	19	03	23	06	24	13	15	01	10	21	25	13	05	19
209	-12	13	11	19	19	-05	-06	-03	07	15	07	-04	-05	19	15	-03
210	14	23	-15	43	18	23	-12	05	08	31	07	-04	-01	11	32	04
211	24	70	-09	17	37	38	00	17	41	22	20	-09	00	19	61	06
212	06	18	11	06	15	01	31	22	04	11	23	23	24	24	17	16
213	08	29	05	17	34	09	08	11	19	16	17	10	09	13	22	18
214	-08	09	51	11	02	-07	13	06	-01	-14	13	31	24	16	14	13
215	16	04	11	07	15	04	-06	27	22	11	-07	18	02	10	19	28
216	-29	-05	28	02	-10	-16	14	-06	-02	-05	06	23	31	08	-09	15
217	75	48	02	26	41	26	16	19	32	09	19	03	02	33	42	11
218	27	85	-06	27	34	39	00	12	44	30	20	-10	09	38	65	04
219	-11	-04	80	11	-08	-18	33	05	-01	-20	02	44	14	11	08	23
220	17	25	13	90	17	13	-05	01	07	22	16	03	04	12	32	29
221	49	-09	29	47	87	-15	25	39	27	15	-09	11	58	45	04	18
222	22	41	-10	17	41	92	-25	13	30	46	16	-16	07	12	39	-02
223	16	26	22	22	25	14	48	13	22	20	25	18	30	24	14	10
224	13	24	-06	18	21	18	06	67	20	28	17	11	17	21	31	11
225	28	55	-10	20	37	43	-12	12	79	39	34	-01	06	24	54	-05
226	-06	01	30	-18	23	23	43	18	16	95	15	-25	06	13	18	04
227	17	46	05	17	21	22	18	13	37	20	65	11	33	38	47	08
228	02	05	42	16	-01	-08	47	11	-01	-13	21	68	38	13	12	28
229	02	30	13	06	15	23	13	03	07	06	16	17	55	45	23	09
230	23	46	-04	13	39	23	02	08	26	32	19	-06	20	74	49	01
231	26	69	-09	26	30	37	-17	14	39	24	30	-01	-03	36	88	02
232	15	23	-02	37	23	25	14	22	06	23	19	19	27	23	20	62
233	16	11	-05	19	27	39	-14	40	22	27	00	-06	01	-02	16	22
234	22	42	-19	17	22	56	-19	21	43	52	13	-20	02	20	33	05
235	23	20	-06	13	11	45	-15	27	19	22	02	-06	13	08	24	16
236	01	35	00	03	32	31	-10	14	11	16	10	09	17	41	34	03
237	16	23	06	01	44	38	-07	21	16	15	18	13	28	36	33	09
238	13	29	-01	45	15	37	-06	10	24	37	11	10	15	13	27	34
239	10	21	-07	48	17	16	05	08	07	34	18	-04	34	20	15	15
240	27	11	15	08	15	08	23	17	09	-01	11	30	34	21	08	18
241	41	-11	08	41	26	-03	17	32	28	13	-02	23	46	41	-02	08
242	01	09	26	17	15	05	06	14	12	13	12	35	24	17	19	17
243	11	13	14	18	08	15	11	15	08	05	17	32	38	21	27	43
244	13	20	12	02	16	23	00	35	15	13	09	12	23	30	31	20
245	07	28	13	27	35	23	08	24	20	22	15	15	32	18	22	09

Table 7. (cont.)

	133	134	135	136	137	138	139	140	141	142	143	144	145
201	14	-08	01	-09	05	11	29	41	12	17	15	09	05
202	01	09	02	-04	-10	19	25	-00	-01	06	-04	-18	-08
203	02	10	04	-04	-02	32	20	01	03	-03	-02	-05	08
204	05	14	05	22	25	18	-03	-02	23	12	-07	09	07
205	01	-09	00	-08	11	01	-01	16	09	10	27	-06	18
206	09	13	05	-04	01	33	27	05	10	00	11	04	16
207	08	14	08	24	13	29	20	19	24	16	14	08	-03
208	19	-01	07	-08	05	03	06	36	00	26	34	15	12
209	-03	-08	-27	-66	-06	18	06	01	01	12	-13	-27	-08
210	03	01	10	07	07	34	39	00	12	07	-02	-04	11
211	08	21	08	22	19	20	13	16	23	11	02	08	-61
212	08	00	01	06	05	03	14	-03	32	03	24	05	13
213	03	09	-06	07	10	15	19	06	25	22	07	04	09
214	-11	-06	-13	00	08	-03	-06	17	-06	54	21	31	09
215	29	15	24	19	14	18	-13	-01	-11	16	42	35	-02
216	01	-16	-18	-02	02	-02	-03	-11	-03	13	12	-12	-13
217	09	17	09	15	32	23	08	10	17	08	18	12	06
218	-02	30	08	31	19	26	21	-03	26	07	-06	01	02
219	08	-22	03	03	11	03	-03	21	-09	33	28	08	06
220	05	01	05	-05	-03	39	45	01	-08	09	09	-16	08
221	36	10	40	49	15	19	10	39	09	07	14	09	08
222	18	55	27	26	31	30	16	01	25	-04	-10	20	04
223	03	02	-02	07	13	09	25	15	24	14	16	04	19
224	20	10	12	16	22	29	17	09	17	02	12	39	28
225	08	34	21	16	20	28	09	06	32	00	01	05	04
226	20	48	25	10	13	32	30	-15	19	-07	-04	06	-13
227	-02	10	-08	18	28	11	20	14	19	15	09	10	15
228	03	-16	04	14	18	13	22	35	04	40	35	21	33
229	01	11	-03	29	26	09	15	11	33	16	19	15	08
230	-05	30	-02	44	39	18	16	-05	40	-04	00	16	12
231	03	21	09	26	24	16	15	-03	26	09	-04	05	-05
232	30	21	18	29	27	36	17	15	05	04	42	14	20
233	72	33	51	18	17	27	14	-04	12	-20	18	33	07
234	24	85	38	23	23	28	16	-11	20	-05	07	18	08
235	44	38	71	21	21	18	16	03	17	-10	18	25	03
236	-02	23	04	84	41	17	14	04	46	-01	01	08	09
237	12	28	02	52	81	-01	01	23	29	14	15	29	11
238	07	23	13	15	09	81	30	01	05	07	08	06	21
239	12	19	13	17	12	23	94	12	33	17	06	02	10
240	07	-01	23	07	18	17	19	69	17	41	33	34	30
241	24	04	40	31	05	29	06	11	86	02	07	15	28
242	-02	03	-19	22	27	18	28	26	08	69	13	04	06
243	27	08	22	21	31	14	09	27	12	22	63	27	11
244	29	21	11	32	37	21	09	16	19	15	21	70	29
245	03	15	-10	20	17	22	26	15	29	21	18	17	49

Table 8. Unrotated Factor Matrix. Elementary Level. (N=100)

	I	II	III	IV
1	.61	.09	.00	.03
2	.10	.21	.32	.02
3	-.27	.00	.35	.59
4	-.17	.45	.00	-.14
5	.64	.07	-.07	.15
6	-.11	.15	.49	.55
7	.34	.23	-.33	.12
8	.70	-.08	.08	.10
9	-.12	.14	-.07	.06
10	-.24	.17	.36	.64
11	-.43	.43	-.45	.21
12	.63	.19	-.22	-.05
13	.66	.22	-.13	.14
14	.47	.28	-.03	-.15
15	.09	.33	.10	-.33
16	.35	-.03	-.14	.26
17	-.21	.54	-.21	-.09
18	-.46	.46	-.46	.98
19	.56	-.04	.09	-.02
20	-.06	.19	.41	.09
21	-.28	.32	-.32	.11
22	-.43	.35	.23	-.23
23	.56	.18	-.10	.07
24	.18	.50	.27	-.06
25	-.29	.49	-.18	-.18
26	-.43	.34	.16	-.04
27	.59	.03	-.17	-.09
28	.73	-.06	.15	-.05
29	.50	.27	-.02	.02
30	.13	.19	-.34	.21
31	-.36	.35	-.22	.29
32	.50	.24	.28	.08
33	.12	.44	.29	-.20
34	-.33	.37	.26	-.36
35	-.09	.37	.48	-.26
36	-.05	.46	-.30	-.04
37	.09	.46	-.34	.05
38	-.12	.32	.55	-.14
39	-.06	.36	.35	.20
40	.59	.13	.04	.13
41	-.10	.40	-.24	.18
42	.49	.35	-.00	.11
43	.68	.11	.09	-.19
44	.19	.51	.08	-.12
45	.25	.43	.11	.27

Table 9. Unrotated Factor Matrix. Intermediate Level. (N=100)

	I	II	III	IV
1	.14	.58	-.15	.04
2	.16	-.00	-.38	.19
3	.37	-.16	-.68	.09
4	.35	-.11	.11	-.03
5	.11	.47	-.29	-.13
6	.45	-.04	-.65	.15
7	.25	.25	.01	-.37
8	.05	.64	-.02	.18
9	.09	-.08	-.42	-.16
10	.43	-.15	-.58	.07
11	.61	-.21	-.08	-.34
12	.20	.47	-.17	-.15
13	.12	.47	-.16	-106
14	.21	.54	.13	-.03
15	.25	.10	.26	.50
16	-.10	.42	-.05	-.16
17	.89	-.09	.00	-.06
18	.65	-.27	.04	-.33
19	-.05	.56	-.06	.03
20	.39	.01	-.45	.30
21	.53	-.13	.05	-.19
22	.53	-.32	.19	.20
23	.05	.52	-.13	-.12
24	.36	.07	.25	.21
25	.58	-.19	.16	.00
26	.43	-.30	-.07	.18
27	.36	.13	-.03	-.09
28	.05	.65	.05	.03
29	.28	.45	.19	-.09
30	.42	.10	.04	-.48
31	.65	-.24	.01	-.30
32	.51	.49	-.02	.30
33	.54	.09	.20	.51
34	.46	-.31	.34	.27
35	.52	-.14	.24	.55
36	.42	-.01	.35	-.26
37	.49	.12	.37	-.18
38	.41	-.07	-.18	.40
39	.42	.04	-.24	.12
40	.21	.48	.00	.02
41	.42	-.10	.13	-.36
42	.22	.53	.02	-.02
43	.24	.54	.14	.22
44	.24	.21	.41	.24
45	.27	.22	.03	.07

Table 10. Unrotated Factor Matrix. Advanced Level. (N=100)

	I	II	III	IV
1	.37	.32	-.32	-.07
2	.22	-.28	-.52	.02
3	.35	-.30	-.69	.12
4	.28	-.18	.11	.15
5	.32	.31	-.23	-.08
6	.42	-.15	-.68	.02
7	.61	.09	.13	.12
8	.37	.50	-.21	-.11
9	.35	.11	-.11	.42
10	.41	-.28	-.49	.11
11	.67	-.17	.21	.30
12	.43	.28	-.04	.10
13	.49	.13	.10	.28
14	.25	.48	-.04	.07
15	.32	.09	.15	-.04
16	.06	.32	.13	.23
17	.60	-.09	.02	-.02
18	.70	-.29	.27	.37
19	.19	.50	-.03	.11
20	.40	-.17	-.40	.16
21	.70	-.19	.07	-.00
22	.54	-.45	.06	-.10
23	.54	.30	-.04	.22
24	.52	.09	.07	-.26
25	.62	-.27	.23	.16
26	.45	-.38	-.06	-.10
27	.56	.14	.06	.24
28	.36	.62	-.08	-.02
29	.54	.23	.21	.04
30	.67	-.11	.22	-.02
31	.66	-.24	.19	.20
32	.53	.13	-.15	-.38
33	.43	-.13	-.13	-.48
34	.46	-.46	.10	-.26
35	.32	-.18	.06	-.52
36	.52	-.14	.34	-.09
37	.53	.01	.30	-.25
38	.51	-.16	-.24	-.11
39	.38	-.07	-.26	.08
40	.47	.49	-.09	-.15
41	.61	-.10	.20	.06
42	.43	.39	-.03	.16,
43	.46	.32	-.10	-.41
44	.49	.17	.17	-.33
45	.64	.11	.07	.13